

RCRA INSPECTION REPORT
ENVIRONMENTAL PROTECTION AGENCY, REGION 9
HAZARDOUS WASTE MANAGEMENT DIVISION
WASTE COMPLIANCE BRANCH

PURPOSE: RCRA INVESTIGATION

FACILITY: OIL PROCESS COMPANY
5756 ALBA ST
LOS ANGELES, CA 90058

FACILITY ID NUMBER: CAD050806850

DATE OF INSPECTION: MARCH 12, 1990

EPA REPRESENTATIVES: PIERRE BELANGER
ENVIRONMENTAL SCIENTIST

MARTHA WALTERS
ENVIRONMENTAL PROTECTION SPECIALIST

DIANE BODINE
ENVIRONMENTAL PROTECTION SPECIALIST

FACILITY REPRESENTATIVES: RON REED
GENERAL MANAGER

DESMOND PHILLIP
PLANT ENGINEER

REPORT PREPARED BY: DIANE BODINE
ENVIRONMENTAL PROTECTION SPECIALIST
(415) 744-1660

BACKGROUND

Oil Process Company (OPC) is a commercial transporter and treatment/storage/disposal facility located in Los Angeles CA. Oil Process Company was purchased by Rollins Environmental Service in December 1989.

OPC filed Resource Conservation and Recovery Act (RCRA) Part A and Part B applications simultaneously with California Department of Health Services (DHS) in 1984. DHS issued a Hazardous Waste Facility Permit to OPC on June 3, 1985. OPC has submitted a revised Part B permit application to DHS which is currently being reviewed by DHS and EPA. The permit process is scheduled for completion by May, 1990.

OPC has discontinued processing oily waste water and primarily does oxidation reduction of heavy metals.

On March 12, 1990 the Environmental Protection Agency conducted a Compliance Evaluation Inspection (CEI) to see if this facility was in compliance with RCRA regulations. EPA has no current enforcement activity at this facility.

FACILITY DESCRIPTION AND TREATMENT PROCESS

At the OPC facility, there are basically two different operations performed. These are treatment of wastewaters to limits suitable for discharge to the City of Los Angeles Sewer System in accordance with the facility's discharge permit, and repackaging of waste to send for off-site disposal.

The treatment of wastewaters consists of three processes: 1) oxidation, used for cyanide wastewaters; 2) reduction, used to treat hexavalent chrome wastewaters; and 3) coagulation, neutralization to treat heavy metal wastewaters. The treated water is discharged to the city sewer following analytical testing to assure it meets permit criteria. Sludge produced by the treatment process is filter pressed and shipped to off-site facilities for disposal (landfill).

The second operation commonly referred to as repacking and bulking takes incoming wastestreams and, following analytical and compatibility testing consolidates them into homogeneous wastestreams for off-site disposal. This is done by combining waste into tankers for shipment, or repacking drummed wastes into containers more suitable for transport and/or disposal.

OBSERVATIONS

It should be noted that photographs were taken of the process; however, the film appears to be over processed. No pictures from the first roll and only a few of the pictures from the second roll turned out.

At the entrance to the facility the hazardous waste warning sign is partially blocked by the moving security gate. It is recommended that the hazardous waste sign be moved in order that it can be seen whether the gate is opened or closed.

The drum storage area was retrofitted in October, 1989. A portable cover/roof was installed over the drum storage area and certified by a registered engineer (attach 10). There were several discrepancies in labeling and storage, both in the drum storage area and the yard.

The hazardous waste inventory log was not current to the hazardous waste that was presently being stored in cells within the drum storage area (attach 2).

The new weekly inspection check list did not include checking emergency equipment. Although, the new check list is more streamlined than the old check list, it will need to be revised to include showers, eyewash and fire extinguishers (attach 3).

OPC waste analysis plan (attach 4) does not identify parameters or rationale for hazardous waste testing.

The Training Record-Master List (attach 5) shows that three of the current employees have not yet received their 40-HR OSHA training. Furthermore, the Health and Safety Manual (sent by OPC) rev. 9/89 only addresses 24 hours of initial health and safety training instead of the required 40-Hr OSHA training. Page 0004 of the manual is titled "Hazardous Material Training" when the subject matter should be hazardous waste.

POTENTIAL VIOLATIONS

Permit dated June 3, 1985 - June 3, 1990

- III C.1.d.(5) No date on seven drums of (F003) hazardous waste stored in the drum storage area.
- III C.1.c. Several of the hazardous waste drums in the drum storage area are too close to the outside berm (10") and at a level higher than the berm, so that if the drum were tipped or fell, hazardous waste could spill outside of the designated/permitted storage area.
- III P.2.a.(1),(2) The hazardous waste inventory log was not current to the hazardous waste that was presently being stored in cells within the drum storage area. Drums that had been delivered and placed in the drum storage area were not accounted for on the hazardous waste inventory list for that day (attach 2).
- III C.1.d. Roll off bin used for storage of waste activated charcoal was not labeled as hazardous waste. Two 5000 gallon portable storage tanks (photo) used for hazardous waste were not labeled for hazardous waste storage. Roll off bin containing spent pickling waste was not labeled as hazardous waste (photo).
- III G.1.c.,d. The roll off bin containing spent pickling waste had an unsigned manifest attached #88379215. It was received 3/9/90 (attach 6).
- III K.2,3,6,7 The new weekly inspection check list did not include checking emergency equipment, such as showers, eyewash and fire extinguisher. The weekly inspection check list did not include the two portable 5000 gallon hazardous waste storage tanks. The inspection check list was not maintained on site.
- III L.2.,4. The Training Record-Master List shows that three of the current employees have not yet received their 40-HR OSHA training. They have been employed by OPC from 4 to 6 years (attach 5).

POTENTIAL VIOLATIONS

III P.1.b (2),c(2)

40 CFR 268.7(a)

Training records were not kept on site.

The Waste Analysis Plan (WAP) fails to describe which of the test methods are used to analyze incoming and outgoing hazardous waste. It is unclear if the filter cake is analyzed for LDR waste. The WAP does not mention the Paint Filter Liquid Test (PFLT), which demonstrates absence or presence of liquid. Furthermore the Wap fails to identify which hazardous waste are LDR wastes. (attach 4).

ATTACHMENTS

1. DOHS Hazardous Waste Facility Permit issued to OPC on June 3, 1985
2. Daily Drum Inventory and Floor Plan Sheet
3. Both the old and new Drum Storage Area inspection sheets
4. OPC Waste Analysis Plan
5. Oil Process Co. Training Record-Master List
6. Unsigned manifest
7. Health and Safety Training - page 0004
8. CEI Checklist - Land Disposal Restrictions
9. Photos taken during inspection at OPC
10. Drum storage area retrofit
11. Financial Responsibility

OPC

3/12/90

Mathew Mathews

Photos

Roll #1 - Monday AM - 9.30 AM

#1 - outside of facility; note h.w. sign

partially blocked by warning fence

2,3,4 - overview of inside of facility; note

the Δ in storage area & absence of

beer tanks.

5,6,7,8 - Drum Storage Area

Wind Sock

10 - Drum Storage Pallet Sign

11 - No Smoking / Danger Signs in Drum

Storage Area

12 - H.W. labels on outside of drums

in Drum Storage Area

13 - H.W. label in Drums Area

14 - 2 Fire extinguishers in DSA

15 - Emergency eye wash in DSA

16 - No start date on EOS H.W. drum

cell 17 - 7 drums w/ no start date (containing)

C 18 - 3 on left side / 4 on right side (#1)

19/20 - Pallets are double stacked w/ drums

on top - violation

21/22 - empty drums which will be

crushed & put into roll-off bin

23 - Cement which will be put into

Sludge - (adjacent to DSA)

24/25 - parts of main operation plant

26/27 - materials storage area - adjacent to

28/29 - " " - maintenance area

30 - activated charcoal roll-off bin

31 - Danger / warning signs at DSA

> 116 gals

need labels on non-stationary containers

want to take w/ us
waste profile sheets - activated charcoal
LDR notification

activated Baker tanks - all gone
Charcoal ~~from Baker tanks~~ is used for
HO Polishing / Stand-by for incinerator
← activated charcoal is taken to landfill
analyzed prior to shipment & prior to
acceptance in landfill.

Chris Lilly - Drum Pad Manager
Tom Marshall - Shipping & Receiving Person
Dennis Schmitz - paperwork manager

Chris Lilly DRUMS, when drums come in:
waste data / profile / paperwork
issued as stream #
check: labeling

condition of drums
when everything is ok:
sampled in tank & unloaded
segregation is determined
drums are separated according to
compatibility.

sent to Baton Rouge, Texas (fuels)

< 10% of refusals

- discrepancy resolved by Chris & Technical
Manager & talk w/ originating party

periodic inspections conducted by
Chris & his crew. Pierre will
look at inspection records.

Oil
Process
Company



(213) 585-5063
FAX (213) 585-9214

Ron Reed
General Manager

5756 Alba Street • Los Angeles, California 90058

Oil
Process
Company



Victoria L. Valliere
Health & Safety Manager
Industrial Hygienist

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ORC 3/12/96

Photographer: M. Watkins

Photo #

32 - 2 roll bins (w/ attached chain) w/
n.h.w. labels

Roll #2 - Monday PM 12:45

1-3 Storage tanks (no labels); ^{have placed for transportation purposes}

4 - spent picking waste w/ roll-off bins
5-9 Process area, note that Baker tanks are w/ seal

Attendees:

Ken Reed - General Manager (ORC)

Desmond Phillips - ORC Operations Manager

Janice Belanger - DITS - Region 3

Pierre Belanger

Diane Bodin

Martina Watkins

opening discussion:

ORC A management in Oct/Nov 1989 (?)

Ken Reed came here in Oct/Nov 1989.

According to Ken Reed:

travelling through Permit Modification

- facility is in "full operation"

Shut down "oil process" to oxidation

reduction for heavy metals.

- treating heavy metals (chrome etc)

- filter press certified by the State

- accepting drum waste

- December 88 purchased by Bellini

→ repaving, paving building for

increased

Modifications - Desmond Phillips / Ken

no stream stripping

don't handle oil waste

re-line tanks for acid waste

aren't accepting any new waste streams

- all processes are within Operation Plan

> Inquiry material



Desmond I. Phillip
Plant Engineer

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Ron Reed
General Manager

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3/12/9 p.l.

OPC.

Desmond Philip - Plant Engr - Bulk Loads.

Chris Lilly - Engr. - H.W. Storage Area.

Ron Reed - Gen. Mgr.

Tom Marshall - Bulk Loading Mgr.

Dennis Shultz - Handles Paper work.

FAC. recently completed changes.

Chem., CN⁻, Heavy metals.

Drum Storage PAD Certified by

OPC - purchased 12/88 by Rollins

FAC. used to repack & bulk for incineration
to Texas & Louisiana incin. FAC.

Bulk loads are 5,000 gallon loads.

Tank modifications include -

No longer due stream stripping -

No oil water waste streams handled any more.

Tanks re-lined refitted for a different process.

Chgs not beyond the permit to open plant.

Need process flow diagram for the current process.
Baker Tanks are gone.

Chemical used for Hall polishing & incineration.

Action: Change \rightarrow landfill. FRC analysis showed for LCR waste.

The open pits from 1984 \rightarrow remediation as well.

Brown Storage:

① Waste Acceptance/Handling done by CRC \sim certified lab.

② Waste brought to site, imported, verified, lab P.C. ($\approx 1\frac{1}{2}$ days).

③ Browns ~~may~~ be built to 5000 years based to current site as fuel or rock.

④ Steams nearly refused -

⑤ Copy of material inventory, weekly map & test record given.

Brown Storage due to 1 yr old. Core was put over " " on Sept/Oct & certified by Engr. at a 90% ~~level~~.

⑥ No Accumulation Start Date in Brown. Problem could immediately.

✓ Weekly visit for evaluation of labels.

Materials showing by not amount H.W. in the cells.

Cell E

Golden Picking } Browns stored 290 days
930 S. Marco St. } Waste Storage

L.A. 70021 } F005, 2002 } Solid Sludge from Picking

Open.

Cell D

Custom. dist F002/F003 - Accum date 3/9/90

Cell C

H.W. labels don't have Accum. date (F003)

Paint wastes not valid for drums per the F-wastes.

See Memo, 89625894 - See waste profile sheet

Red H. Browns

Two beds contained H.W. (chromed) + waste from under tanks, no labels.

① Height of Browns is greater than brown. Two failure to measuring volume.

Tom Marshall - Shipping/Receiving Super
Trailer scraped yard, waste verified
no load waste.

H.W. for plot - 7700 tons

H.W. Fuel & Oils material blend & sent to us
of OGC's etc. - Texas & Bahr Range Co.

Fuel DE -> Bahr Range.

East Tex -> then to Texas.

DE granules - 6 K gallons.

Drum wastes are pumped from Storage drums to
Trailer.

The manifest from ex. waste is included on the
full load on the trailer.

2 Bulk Truck load/walk 1 Fuel / 1 TOX

These trailers are for Storage only. The H.W.
is pumped to another.

Roll-off Bins 10062
Spent Steel Bickle Sides - Insect Manifest -
No H.W. load -
Packed & put off requirements

2 Bins - See photo log for references &
Documents Received.

Process Plan -
Manifest

Daily Dump of Trucks/Storage Area
Open Plan.

Modified Part B submitted in Oct.
Joe Rose
Douglas Bautista.

Draft EPA State Permit issued.

Comments issued March 3, 1990

Decision by DWS on approval/disapproval of Permit.

What part of Operation plan has been modified
Incomplete Training Records on H.W. handling.
Specific Training doesn't contain some content
Not maintained on site.

Roll-off Bins (excluding Transfer bin) need markings
as generated waste Action Chained could form Int
nominal.

2 Roll off Bins of H.W. from other sites -

① Un-signed manifest. (picking material)
not marked & date of acceptance.

NO H.W. label.

② No H.W. label - Transfer Station exemption.
6 Day requirement.

Manifests not maintained for 3 years.

Is contingency plan current - Jan. 1985 - ?

Accum. Dates missing -

DBL pallets to high -

Weekly imp / out

Material Inventory log needs to be kept current.

W.A.P. - No LDR considerations.

Plant
CAROL

Peggy
Mike

KCol

McIDr

Locke
R

Rocow
Carol
Marge

Part A

Process
Fuelin

Paint

Mainten

Boiler

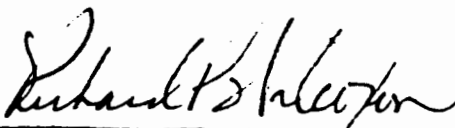
Note /
the

DEPARTMENT OF HEALTH SERVICES

107 SOUTH BROADWAY, ROOM 8 48
LOS ANGELES, CA 90012

Facility:)	<u>HAZARDOUS WASTE FACILITY PERMIT</u>
)	
Oil Process Company)	ID Number: CAD 050806850
5756 Alba Street)	
Los Angeles, California 90058)	Effective Date: June 3, 1985
Los Angeles County)	
)	Expiration Date: June 3, 1990
Operator:)	
)	
Oil Inc.)	
5756 Alba Street)	
Los Angeles, California 90058)	

Pursuant to Section 25200 of the California Health and Safety Code, this Hazardous Waste Facility Permit is hereby granted to Oil Inc. The granting of this permit is subject to the conditions set forth in Attachment A which consists of 26 pages.



Richard P. Wilcoxon, Chief
Toxic Substances Control Division

Date

June 3, 1985

ATTACHMENT A

Hazardous Waste Facility Permit

OIL PROCESS COMPANY
5756 Alba Street
Los Angeles County
Los Angeles, California 90058

CAD 050806850

I. DESCRIPTION OF FACILITY

A. Ownership, Operations, and Location

Oil Inc., hereinafter called the "operator" and the "owner" has applied to the California State Department of Health Services for a permit authorizing the operation of a proposed hazardous waste storage, transfer and treatment for customer generated wastes. The facility will be located at 5756 Alba Street, Los Angeles, Los Angeles County, California. The site presently contains the transportation offices, a trucking yard and oil-water waste separation facilities owned and operated by Oil Inc.

The new hazardous waste facility will store and treat hazardous wastes in tanks and containers. The facility will handle the following wastes: solutions containing heavy metals; spent solvents; wastewater treatment sludges; spent electroplating bath solutions and sludges; dissolved air flotation float; slop oil emulsion solids; heat exchanger bundle cleaning sludges; API separator sludge; tank bottoms; spent steel pickle liquor; ink formulations and polychlorinated biphenyls. Those wastes will be generated by electroplating, petrochemical, petroleum refineries, steel, ink formulation and ordinance manufacturing industries. The estimated quantities of wastes that will be handled and/or processed at the facility will be approximately 3,640,000 gallons per year.

Bulk wastes will arrive at the facility in vacuum tank trucks and shall be discharged into one of six process tanks. Each process tank will have a 10,000 gallon capacity. The wastes shall be treated by physical and/or chemical treatment processes, consisting of gravity flotation and sedimentation; neutralization; flocculation and precipitation; oxidation-reduction; dissolved air flotation; and/or charcoal filtration. In addition to the process tanks, partially treated wastes shall be stored in a 100,000 gallon tank used for waste retention and surge control to insure adequate process flow control. Treated effluent shall be stored in a 100,000 gallon tank prior to discharge to the sewer. Solids and sludges removed from the process tanks shall be pumped to a vacuum drum filter for dewatering. The resultant filter cake shall be transported and disposed off-site at a permitted disposal site. The filtrate shall be returned to the process tanks for recycling through the system. Reclaimed oils removed by the treatment processes shall be stored in a 20,000 gallon tank prior to transportation to a permitted oil recycling facility. Vapors generated during treatment shall be removed by a vacuum

collection system and shall be incinerated. Exhaust gases shall be scrubbed in a lime water scrubbing tower prior to exit to the atmosphere.

Wastes will also arrive at the facility in containers (drums or other DOT approved containers). These containers will be transported in flatbed trucks or pickup trucks. Containers shall be stored in an enclosed drum storage area measuring 17 ft. by 120 ft. The storage area shall be divided into five compartments separated by physical walls. The five compartments shall store polychlorinated biphenyls (PCB) wastes, reactive wastes, incompatible wastes, ignitable wastes, and empty/crushed containers. The PCB compartment shall be further subdivided into two subcompartments by a berm. The subcompartments shall store separately the following PCB and/or water reactive wastes: Either 15 55-gallon drums of liquid PCB waste; or 22 55-gallon drums of liquid water reactive waste; or a combination of 7 drums of liquid PCB and 11 drums of liquid water reactive wastes. The remaining compartments shall store a maximum of 91 55-gallon drums of liquid hazardous waste. The empty/crushed containers compartment may also be used to store a maximum 23 55-gallon drums of liquid waste. A larger number of drums containing solidified wastes may be stored in the compartments, not to exceed the equivalent liquid volume of the above specified drums.

The liquid waste material arriving in containers (which can be treated at this facility) shall be pumped out by vacuum tank truck and discharged into the treatment process system. The empty containers shall be properly rinsed; and either, transported to an approved drum recycler or crushed/disposed of at a permitted disposal facility. The liquid wastes which cannot be treated at this facility shall be solidified and transported to a permitted disposal site.

The California State Department of Health Services has jurisdiction over this hazardous waste facility and is issuing this permit subject to the terms and conditions contained herein.

B. Compliance with the California Environmental Quality Act

The Department of Health Services, Toxic Substances Control Division has prepared a negative declaration in accordance with the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.) and the State Guidelines. The Department has determined that this particular project will not have a significant deleterious effect on the environment. The Department of Health Services Toxic Substances Control Division certified this negative declaration on March 6, 1985.

II. GENERAL CONDITIONS

A. References and Terminology

All parts in this permit are identified by Roman numerals. The items set forth in each part shall apply to the owner, operators, and/or facility in addition to the items set forth in any preceding and/or

following part of this permit. Unless explicitly stated otherwise, all cross-references to items in this permit shall refer only to items occurring within the same part.

B. Effect of Permit

The owner or operator is permitted to treat and store hazardous wastes in accordance with the conditions of this permit. Any treatment and storage of hazardous wastes not authorized in this permit is prohibited. Compliance with this permit constitutes compliance for purposes of enforcement with the provisions of the California Health and Safety (H&S) Code, in regards to the facility permit requirements including Chapter 6.5, Division 20, and with the minimum Standards for Management of Hazardous and Extremely Hazardous Wastes (Chapter 30, Division 4, Title 22, CAC). Issuance of this permit does not convey property rights of any sort or any exclusive privilege, nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of federal, state, or local law or regulations. Compliance with the terms of this permit does not constitute a defense to any action brought under any other law governing protection of public health or the environment for any imminent and substantial endangerment to human health or the environment.

C. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause as specified in Sections 66382, 66383, and 66385, Title 22, California Administrative Code (CAC), or at the discretion of the California State Department of Health Services (DHS) (herein after referred to as "the Department") in order to protect public health or the environment. This permit may be modified, revoked, or terminated for cause. A new facility permit condition or a modification of an existing facility permit condition shall become effective on the date that written notice of such change is received by the owner or operator. The filing of a request for a permit modification, revocation, and reissuance, or termination or the modification of planned changes or anticipated noncompliance on any part of the owner or operator does not stay the applicability or enforceability of any permit condition.

D. Need to Halt or Reduce Activity

It shall not be a defense for the owner or operator in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

E. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

F. Operation Plan

1. By the issuance of this permit, the Operation Plan dated January 8, 1984 is hereby approved. This Operation Plan and any subsequent revisions thereof, subject to the approval of the Department, are by this reference made part of this permit. Specific sections of the Operation Plan are referenced elsewhere in this permit.
2. The owner or operator shall operate and maintain the facility in accordance with the Operation Plan.
3. In the event of any conflict between this permit and the Operation Plan referenced herein, the provisions of the permit shall be controlling.
4. The Operation Plan shall be maintained at the facility at all times until closure is completed.

G. General Responsibilities of Operator

1. Compliance

- a. The owner or operator shall comply with all conditions of this permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit or approved by the Department. Any permit noncompliance constitutes grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application.
- b. The owner or operator shall comply with all laws, regulations, permits, zoning conditions, and all other requirements established by federal, state, and local agencies.

2. Reapplication

If the owner or operator wishes to continue an activity regulated by this permit after the expiration date of this permit, the owner or operator must submit a completed application for a new permit at least 180 days before this permit expires.

3. Permit Expiration

This permit and all conditions therein will remain in effect beyond the permit expiration or termination date if the owner or operator has submitted a timely, completed application and, through no fault of the owner or operator, the Department has not issued a new permit.

4. Transfer of Permit

This permit may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to Section 66382 (b)(2) or 66385 (d), Title 22, CAC. The owner or operator shall

notify the Department of a proposed change in ownership of this facility at least 30 days prior to the date of the transfer. Furthermore, before transferring ownership or operation of the facility during its operating life, the owner or operator shall notify the new owner or operator in writing of the requirements of this permit and the permitting process. A copy of this notification shall be submitted to the Department.

5. Mitigation

The owner or operator shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

6. Operation and Maintenance

- a. The facility shall be maintained at all times and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or nonsudden release of hazardous waste or hazardous waste constituents to air, soil, surface water, or ground water which could threaten human health or the environment.
- b. All equipment, pipes, and lines used at the facility to handle, transfer, pump, or store hazardous wastes shall be maintained in a manner that prevents the leaking and spilling of hazardous wastes.
- c. The owner or operator shall at all times properly operate and maintain all facilities of treatment and control (and related appurtenances) which are installed or used by the owner or operator to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facility or similar systems only when necessary to achieve compliance with the conditions of the permit.

7. Submittal of Requested Information

The owner or operator shall furnish to the Department, within a reasonable time, any relevant information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, terminating this permit, or to determine compliance with this permit. The owner or operator shall also furnish to the Department; upon request, copies of records required to be kept by this permit.

8. Hazardous Waste List

- a. The owner or operator shall maintain a current list of hazardous wastes that can be accepted by the facility. The owner or operator shall as necessary, update the hazardous

waste list presented in the approved Operation Plan. Any additions to the list must be approved by the Department prior to their inclusion.

- b. Transfer stations, since they have variable inventories can handle all wastes except those prohibited in item III.B.

9. Inspection and Entry

The owner or operator shall allow authorized representatives of the Department, the State Water Resources Control Board, Regional Water Quality Control Board or the local health agency, upon the presentation of credentials and other documents as may be required by law to:

- a. Enter at reasonable times upon the owner's or operator's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor, at reasonable times, for the purpose of assuring permit compliance or, as otherwise authorized by law, any substances or parameters at any location.

10. Planned Changes

The owner or operator shall obtain approval from the Department as soon as possible and at least 30 days in advance of any planned physical alterations or additions affecting operation of the hazardous waste area of the permitted facility.

11. Anticipated Noncompliance

The owner or operator shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The owner/operator shall report to the California Office of Emergency Services (800) 852-7550 any circumstances that may endanger public health or the environment immediately upon becoming aware of the incident.

12. 24-Hour Reporting

The owner or operator shall report to the Department any noncompliance which may endanger health or the environment. Any information shall be provided verbally within 24 hours from the

time the owner or operator becomes aware of the noncompliance. The following shall be included as information which must be reported verbally within 24 hours to the Toxic Substances Control Division, Southern California Section, (213) 620-2380.

- a. Information concerning release of any hazardous waste that may cause an endangerment to the public drinking water supplies.
- b. Any information of a release or discharge of hazardous waste, or of a fire or explosion from the facility, which could threaten the environment or human health outside the facility. The description of the occurrence and its cause shall include:
 - (1) Name, address, and telephone number of the owner or operator;
 - (2) Name, address, and telephone number of facility;
 - (3) Date, time, and type of incident;
 - (4) Name and quantity of material(s) involved;
 - (5) The extent of injuries, if any;
 - (6) An assessment of actual or potential hazard to the environment and human health outside the facility, where this is applicable; and
 - (7) Estimated quantity and disposition of recovered material that resulted from the incident.

A written submission shall also be provided within five days of the time the owner or operator becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the periods of noncompliance (including exact dates and times), and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

13. Other Noncompliance

The owner or operator shall report all other instances of noncompliance not otherwise required to be reported at the time monitoring or other reports are submitted. The reports shall contain the information listed in II.G.12. above.

14. Other Information

The owner or operator shall promptly submit all facts or information which have been omitted or which correct information in the permit application or any other report submitted to the Department.

H. Signatory Requirement

All reports or other information requested by the Department shall be signed by the owner or operator. For a corporation, this would be a responsible corporate officer. The person signing the document shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

I. Certification of Construction

The owner or operator may not commence treatment, storage, or transfer of hazardous wastes at the facility or modified portion of the facility until:

The owner or operator has submitted to the Department by certified mail or hand delivery a letter signed by the owner or operator and an appropriate engineer registered in California stating that the facility has been constructed in compliance with the permit; and

1. The California State DHS has inspected the constructed facility and finds it is in compliance with the conditions of the permit; or
2. The California State DHS has either waived the inspection or has not within 15 days notified the owner or operator of its intent to inspect.

III. SPECIAL CONDITIONS

A. Prohibition of Disposal

Hazardous wastes shall not be permanently disposed of at the facility.

B. Wastes Prohibited

Hazardous wastes described below shall not be handled at the facility:

1. Extremely hazardous wastes as defined in Sections 66064, 66720 and 66723, Title 22, CAC, unless specifically approved by the Department;
2. Forbidden and Class A explosives as defined in Sections 173.51 and 173.53, Title 49, CFR; and

3. Any hazardous waste not listed in the approved Operation Plan or otherwise approved by the Department.

C. Storage Conditions

1. Storage in Containers

- a. Containers holding hazardous wastes shall be stored only in the area designated in the approved Operation Plan.
- b. A container holding hazardous waste shall remain closed during storage, except when it is necessary to add or remove waste.
- c. A container holding hazardous waste shall not be handled, or stored in a manner which might rupture the container or cause it to leak.
- d. A label shall be maintained on all containers in which hazardous wastes are stored. Labels shall include the following information.
 - (1) Composition and physical state of the waste;
 - (2) Special safety recommendations and precautions for handling the waste;
 - (3) Statement or statements which call attention to the particular hazardous properties of the waste;
 - (4) Amount of waste and name and address of the person producing the waste; and
 - (5) Date of acceptance at the storage facility.
- e. Empty containers contaminated with hazardous materials shall be stored, handled, and processed as hazardous wastes.
- f. The total number of containers storing hazardous waste in the storage area shall not exceed the designed capacity of the storage area at any one time.
- g. Containers used for storing hazardous waste shall be in a condition such that the containers can be safely transported, handled, or moved.
- h. If a container holding hazardous waste is not in good condition, or if it begins to leak, the owner or operator shall transfer the hazardous waste from this container to a container that is in good condition, or manage the waste in some other way that complies with the conditions of this permit.

i. Compatibility of Waste with Containers

The owner or operator shall use a container made of/or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

j. Containment

- (1) For all containment areas, the owner or operator shall provide a spill containment system in accordance with the approved Operation Plan. Specifically, each hazardous waste storage area shall have a continuous base that is impervious to the waste stored and shall be designed and constructed so that any spills can be contained.
- (2) In addition to the requirements of (1) above, the containment system shall be constructed so that any surface water runoff can be contained, surface water runoff can be excluded and shall have sufficient capacity to contain 10 percent of the volume of containers or the volume of the largest container, whichever is greater. Outdoor containment areas must also contain precipitation from a 24-hour, 25-year storm.
- (3) Spills, leaks and precipitation shall be promptly removed from the containment area to prevent overflow.

k. PCB Wastes

Containers holding polychlorinated biphenyl (PCBs) or devices containing PCB wastes shall comply with the applicable requirements of Part 761, Title 40, CFR.

2. Storage in Tanks

a. Design of Tanks

- (1) The owner or operator shall construct all tanks in accordance with the approved Operation Plan.
- (2) The owner or operator shall maintain the minimum shell thickness specified in the approved operation plan at all times to ensure sufficient shell strength.
- (3) Prior to use, new replacement, and repaired hazardous waste storage tanks and their appurtenances shall be certified by an engineer registered in California to be structurally sound and of adequate construction for the intended use.

- (4) Each hazardous waste storage tank and storage area shall be individually marked with the internationally recognized hazard identification system placards developed by the National Fire Prevention Association.
- (5) The total volume of hazardous waste stored in tanks shall not exceed the designed capacity at any one time.

b. Containment

- (1) For all containment areas the owner or operator shall provide a spill containment system in accordance with the approved Operation Plan. Specifically, each hazardous waste storage area shall have a continuous base that is impervious to the waste stored, shall be designed and constructed so that any spills can be contained, and shall have sufficient capacity to contain 10 percent of the total volume of the tanks, or the volume of the largest tank, whichever is greater.
- (2) Outdoor uncovered containment areas in addition to the requirements of item (1) above shall contain any surface water runoff, exclude any surface water runoff and contain precipitation from a 24-hour, 25-year storm.
- (3) Spills, leaks and precipitation shall be promptly removed from the containment area to prevent overflow.

c. Operation

Hazardous wastes shall not be placed in a tank if they could cause the tanks or its liner to rupture, leak, corrode, or otherwise fail before the end of its intended life.

d. Compatibility of Waste with Tanks

The owner or operator shall use a tank made of or lined with materials which will not react with, and are otherwise compatible with the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

D. Treatment Conditions

Operation and maintenance of the treatment system shall be conducted in accordance with Section VIII of the Operation Plan.

1. The mixing and blending of potentially incompatible materials and wastes for purposes of recovering resources, neutralizing wastes, or detoxifying wastes shall be carried out under controlled conditions to ensure that violent reactions, extreme heat, or fire do not occur and that toxic or flammable gases and vapors are not released into the atmosphere.

2. Hazardous wastes or treatment reagents shall not be placed in the treatment process or equipment if they cause the treatment process or equipment to rupture, leak, corrode, or otherwise fail before the end of its intended life.

E. Management of Ignitable, Reactive, or Incompatible Wastes

1. The treatment and storage of ignitable, reactive, or incompatible wastes and materials shall be conducted so that it does not:

- a. Generate extreme heat or pressure, fire or explosion, or violent reaction.
- b. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;
- c. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
- d. Damage the structural integrity of the device or facility containing the waste; or
- e. Through other like means threaten human health or the environment.

2. Ignitable or Reactive Waste

- a. The owner or operator shall take precautions to prevent accidental ignition of ignitable wastes or reaction of reactive wastes. This waste shall be separated and protected from sources of ignition or reaction. While ignitable or reactive waste is being handled, the owner or operator shall confine smoking and open flame to specially designed locations. "No Smoking" signs shall be conspicuously placed wherever there is a hazard from ignitable or reactive waste.
- b. Each container holding ignitable or reactive waste shall be situated at least 15 meters (50 feet) from the property line of the facility.
- c. Ignitable or reactive waste shall not be placed in a tank or container for storage or treatment unless:
 - (1) The waste is treated, rendered, or mixed before or immediately after placement in the tank or container so that the resulting waste, mixture or dissolution of materials is no longer ignitable or reactive and item E. (1) of this permit is complied with; or
 - (2) The waste is treated and stored in such a way that it is protected from any material or condition which may cause the waste to ignite or react; or
 - (3) The tank or container is used solely for emergencies.

- d. Storage of ignitable or reactive waste in covered tanks shall comply with the National Fire Protection Association buffer zone requirements published annually in National Fire Codes (Code 30, Volume 3).

4. Incompatible Wastes

- a. Hazardous waste shall not be placed in an unwashed tank or container that previously held an incompatible waste or material.
- b. Areas used for storing containers of incompatible hazardous waste shall be widely separated, or physical impermeable barriers such as a berm, dike, or wall shall be provided to ensure that commingling of incompatible hazardous wastes cannot occur.
- c. The following incompatible hazardous waste groups shall be adequately separated from each other during all handling and storage operations:

Examples:

- (1) Cyanides shall be separated from acids. _____
- (2) Organic acids shall be separated from toxics. _____
- (3) Reactive toxic metals shall be separated from water. _____

F. Operation at Night

When the facility is operated during hours of darkness, the owner or operator shall provide sufficient lighting to ensure safe, effective management of hazardous wastes.

G. Manifest System

1. The owner or operator shall:

- a. Require that a manifest be completed for all hazardous waste accepted;
- b. Inspect wastes before accepting them to ensure that the delivered waste has essentially the same general properties as identified by the generator on the manifest;
- c. Complete the appropriate section of the manifest;
- d. Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received;
- e. Note any significant discrepancies in the manifest on each copy of the manifest;

- f. Immediately give the transporter at least one copy of the signed manifest;
- g. Send legible copies of all completed hazardous waste manifests to the Department on a monthly basis in conformance with Section 67168, Title 22, CAC;
- h. Within 30 days after delivery, send a copy of the manifest to the generator;
- i. Retain at the facility a copy of each manifest for a least three years from the date of delivery; and
- j. Submit to the Department by the last day of each month information on the hazardous waste delivered during the previous month consisting of a legible copy of the completed manifest for each load of hazardous wastes accepted, and a report that summarized the numbers of loads of hazardous wastes received.

2. Manifest Discrepancies

a. Significant Discrepancies

- (1) Upon discovering a significant discrepancy between the quantity or type of hazardous waste designated on the manifest and the quantity or type of hazardous waste the facility actually receives, the owner or operator shall attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations).
- (2) Significant discrepancies in quantity are:
 - (a) For bulk waste, variations greater than ten percent in weight; and
 - (b) For batch waste, any variation in piece count such as a discrepancy of one drum in a truckload.
- (3) Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest.

- b. If the facility cannot legally accept the waste, the owner or operator shall immediately notify the Department of that fact, identify the transporter and generator of the waste, and refuse to accept the waste. If the owner or operator can accept the waste, the owner or operator shall note how the discrepancy was resolved on the copy of the manifest submitted to the Department and on the copy retained at the facility. If the discrepancy is not resolved within 15 days

after receiving the waste, the owner or operator shall immediately submit to the Department a letter describing the discrepancy and attempts to reconcile it and a copy of the manifest at issue.

3. Unmanifested Wastes Received/Rejected

When the facility receives/rejects an unmanifested load of hazardous waste the owner or operator shall prepare and submit a report to the Department within 15 days. The report shall include the following information:

- a. The Environmental Protection Agency (EPA) identification number, name and address of the facility receiving/rejecting the waste;
- b. The date the facility received/rejected the waste;
- c. The EPA identification number, name and address of the generator and the transporter who transported the waste;
- d. The license numbers of the vehicles used to transport the waste. This shall include the license number of the tractor as well as the trailers if appropriate;
- e. A description and quantity of the received/rejected load of hazardous waste;
- f. For waste received, the method of treatment, storage or disposal for each hazardous waste;
- g. If rejected, a brief explanation of why the waste was rejected;
- h. A brief explanation of why the waste was unmanifested if known; and
- i. A certification as required by item II.H of this permit.

4. Uncertified Hauler

The owner or operator shall notify the Department in writing within 15 days when the facility receives any hazardous waste from an uncertified hauler or if the facility receives hazardous waste that was transported in an uncertified vehicle or container.

H. Required Notice

1. If the owner or operator has arranged to receive hazardous waste from a foreign source, the owner or operator shall notify the Department in writing at least four weeks in advance of the date that the waste is expected to arrive at the facility. Notice subsequent shipments of the same waste from the same foreign source is not required.

2. When the owner or operator receives hazardous waste from an off-site source, the owner or operator must inform the generator in writing that the facility has the appropriate permit(s) for, and will accept, the waste the generator is shipping. The owner or operator shall keep a copy of this written notice as part of the operating record.

I. Analysis of Waste

1. Upon the effective date of this permit, the owner or operator shall follow the written waste analysis plan as described in the approved Operation Plan.
2. a. Prior to the treatment and storage of a particular type of hazardous waste for the first time (or the use of a treatment process which differs substantially from the previously used), the owner or operator shall:
 - (1) Conduct waste analyses and trial treatment tests (e.g., bench scale or pilot plant scale tests); or
 - (2) Obtain documented information on similar treatment of similar waste under similar operating conditions.
- b. These tests or information shall include data pertaining to the compatibility of wastes with the container or tank used for treatment and storage of these wastes.
- c. The owner or operator shall ensure that the treatment and storage of any hazardous waste will not:
 - (1) Generate extreme heat or pressure, fire or explosion, or violent reaction;
 - (2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;
 - (3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
 - (4) Damage the structural integrity of the device or facility containing the waste; or
 - (5) Through other like means threaten human health or the environment.
3. The analysis shall be repeated, as necessary, to ensure that it is accurate and up-to-date. As a minimum, the analysis must be repeated when the owner or operator is notified or has reason to believe that the process operation generating the hazardous waste has changed.
4. The owner or operator shall verify the waste analysis plan as part of the quality assurance program. The quality assurance program

- will be in accordance with current U.S. EPA practices (Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846 dated July 1982) or equivalent methods approved by the Department; and at a minimum ensure that the owner or operator maintain proper functional instruments, uses approved sampling and analytical methods, assures the validity of sampling and analytical procedures, and performs correct calculations.
5. Data developed for other purposes, and existing published or documented data on the hazardous waste or on waste generated from similar process may supplement the waste analysis plan.
 6. Samples taken for the purpose of monitoring shall be representative of the monitored activity.
 7. The owner or operator shall retain records of all monitoring information as part of the operating record until closure of the facility.
 8. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurement;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used;
 - f. The results of such analyses; and
 - g. Collected drain water sampling/disposal.

J. Security

1. The owner or operator shall prevent the entry of unauthorized persons or livestock onto the facility by maintaining the following:
 - a. A fence in good condition or other artificial or natural barrier which completely surrounds the active portion of the facility and has gates or other means to control entry; or
 - b. A 24-hour surveillance system which continuously monitors and controls entry to the facility.
 - c. Or as described in the Operation Plan.
2. Signs indicating that the facility, or the hazardous waste area of the facility, contains hazardous wastes shall be placed on the perimeter fence at the entrance and at locations where it is anticipated that unauthorized persons may enter the active portion of the facility.

Wording of the signs shall be in English, "Caution ... Hazardous Waste Area ... Unauthorized Persons Keep Out", and Spanish, "Cuidado! Zona de Residuos Peligrosos. Prohibida la Entrada a Personas No Autorizadas". Signs will be legible from a distance of 25 feet.

K. Inspections

1. The owner or operator shall inspect the facility for malfunctions and deterioration, operator errors, and discharges which may cause or may lead to the release of hazardous waste constituents to the environment or a threat to human health. The owner or operator shall conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.
2. The owner or operator shall inspect all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and pumps) that are important to preventing, detecting or responding to the environmental or human health hazards in accordance with the written inspection schedule in the approved Operation Plan.
3. The owner or operator shall test and maintain all safety and emergency equipment (alarm systems, fire protection equipment, spill control equipment, decontamination equipment) as necessary to ensure proper operation in the event of an emergency.
4. In accordance with the written inspection schedule in the approved Operation Plan, the owner or operator shall inspect:
 - a. Discharge and overfilling control equipment, at least once each operating day, to ensure that it is in good working order;
 - b. Data gathered from monitoring equipment, at least once each operating day, to ensure that the tank is being operated according to its design;
 - c. The level of waste in the tank, at least once each operating day, to ensure compliance with item C. 2. a. (5).
5. In accordance with the written inspection schedule of the approved Operation Plan, the owner or operator shall inspect:
 - a. Treatment process equipment, at least once each operating day, to ensure that it is in good working order;
 - b. Process and operations monitoring equipment, at least once each operating day, to ensure that the treatment process or equipment is being operated according to its design;
 - c. The construction materials of the treatment process or equipment, at least weekly, to detect corrosion or leaking of fixtures or seams; and

- d. The construction materials of, and the area immediately surrounding discharge confinement structures, at least weekly, to detect obvious signs of leakage.
6. The owner or operator shall remedy any deterioration or malfunction of equipment or structures which the inspection identifies as soon as possible to ensure that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action shall be taken immediately as described in the contingency plan.
7. The owner or operator shall record inspections in an inspection log or summary and shall keep these records for at least three years from the date of inspection.

L. Personnel Training

1. Facility personnel shall successfully complete the program of classroom instruction or on-the-job training as described in the approved Operation Plan.
2. Personnel shall have successfully completed this program within six months after the date of their employment or assignment to a facility or to a new position at the facility whichever is later. Employees hired after the effective date of this permit shall not work in unsupervised positions until they have completed these training requirements.
3. Facility personnel shall take part in an annual review of the required training.
4. The owner or operator shall maintain the training records as identified in the approved Operation Plan.
5. Training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

M. Contingency Plan

1. Implementation
 - a. The owner or operator shall follow the contingency plan described in the approved Operation Plan.
 - b. The provisions of the contingency plan shall be carried out immediately whenever there is a fire, explosion, release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

2. Distribution

A copy of the contingency plan and all revisions to the plan shall be:

- a. Maintained at the facility; and
- b. Submitted to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called up to provide emergency services.

3. Amendment of Contingency Plan

The contingency plan shall be reviewed and immediately amended, if necessary, whenever:

- a. Applicable regulations are revised;
- b. The plan fails in an emergency;
- c. Whenever the permit is revised;
- d. The list of emergency coordinators changes; or
- e. The list of emergency equipment changes; and
- f. The facility changes in its design, construction, operation or maintenance in a way that materially increases the potential for fire, explosions or releases of hazardous waste.

The owner or operator shall receive approval from the Department prior to any proposed amendments to the contingency plan.

4. Emergency Coordinator

At all times there shall be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator shall be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan.

5. Emergency Procedures

- a. Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) shall follow the procedures of the contingency plan as described in the approved Operation Plan.

- b. The owner or operator shall notify the Department and local authorities that the cleanup procedures are complete and all emergency equipment listed in the contingency plan is clean and fit for its intended use before the operations are resumed.
- c. The owner or operator shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan.
- d. The owner or operator shall submit within 24 hours an oral report and within 15 days a written report of incident to the Department in accordance with item II.G.12. The Office of Emergency Services shall also be notified.

6. Arrangement with Local Authorities

- a. The owner or operator shall ensure that emergency response arrangements with local authorities are in effect upon the effective date of this permit.
- b. If local authorities refuse to enter into preparedness and prevention arrangements with the owner or operator, the owner or operator shall document this refusal in the operating record.

N. Required Equipment

- 1. The owner or operator shall have available at the facility all required safety and emergency equipment as described in the approved Operation Plan.
- 2. The facility water supply system shall be capable of providing water in adequate volume and pressure to maintain water hose streams.
- 3. The owner or operator shall maintain access to communication or alarm system specified in the approved Operation Plan.

All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment shall be tested and maintained as necessary to ensure its proper operation in the time of emergency.

O. Required Aisle Space

The owner or operator shall maintain aisle space as needed to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment.

P. Recordkeeping and Reporting

- 1. Availability, Retention, and Disposition of Records
 - a. All records including plans, required in this permit shall be furnished upon request, and made available at all reasonable

times for inspection, by any officer, employee, or representative of the Department, State Water Resources Control Board or Regional Water Quality Control Board.

- b. The owner or operator shall maintain until closure is completed and certified by an independent engineer registered in California, the following records, reports, documents, and all amendments, revisions, and modifications thereof at the owner or operator's place of business and at the facility, so as to be available at all times to operating personnel:
 - (1) Operating record.
 - (2) Training records for current employees.
 - (3) Hazardous Waste Facility Permit.
 - (4) Operation Plan.
 - (5) Waste analysis plan.
 - (6) Contingency plan.
 - (7) Closure Plan.
 - (8) Closure cost estimate.
 - (9) Inspection Schedules.
 - (10) Copies of each manifest received.
- c. The owner or operator shall retain the following records at the facility for at least three years:
 - (1) Inspection record.
 - (2) Training records for former employees.
 - (3) Copies of each manifest received.
- d. The retention period for all records required in this permit is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Department.

2. Operating Record

- a. The owner or operator shall keep a written operating record at the facility.

The following information shall be recorded, as it becomes available, and maintained in the operating record until the closure of the facility:

- (1) The description and the quantity of each hazardous waste

received, and the method(s) and date(s) of it's treatment and storage at the facility;

- (2) The location of each hazardous waste within the facility and the quantity at each location. This information shall include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest;
 - (3) Records and results of waste analyses and trial tests performed;
 - (4) Summary reports and details of all incidents that require implementing the contingency plan;
 - (5) Records and results of inspections (except these data need be kept only three years);
 - (6) Monitoring, testing or analytical data; and
 - (7) All closure cost estimates.
- b. When the owner or operator receives hazardous waste from an off-site source, he must inform the generator in writing that he has the appropriate permit(s) for, and will accept, the waste the generator is shipping. The owner or operator shall keep a copy of this written notice as part of the operating record.

3. Reporting and Notification Requirements

- a. All reports or other information requested by the Department shall satisfy the signatory requirements in II.H.
- b. Annual Report

The owner or operator shall prepare and submit two copies of an annual report to the Department and one copy to the appropriate Regional Water Quality Control Board by March 1 of each year beginning March 1, 1986. The annual report shall cover facility activities during the previous calendar year and shall include the following information:

- (1) The EPA identification number, name, and address of the facility;
- (2) The calendar year covered by the report;
- (3) Updated closure cost estimate for the facility;
- (4) The EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the time period; for imported shipment, the report shall give the name and address of the foreign generator;

- (5) The description, quantity, and method of treatment, storage, and/or disposal of each hazardous waste the facility received during the time period; listed by EPA identification number of each generator;
- (6) Environmental monitoring data in accordance with Section 67195, Title 22, CAC; and
- (7) A certification as required in item II. H.

Q. Closure

1. Closure Plan and Amendment of Plan

- a. The owner or operator shall comply with the closure plan as described in the approved Operation Plan.
- b. The owner or operator may amend his closure plan at any time during the active life of the facility. (The active life of the facility is that period during which wastes are periodically received.) The owner or operator shall propose to amend his plan any time changes in operating plans or facility design affect the closure plan or whenever there is a change in expected year of closure.
- c. The owner or operator shall submit to the Department for approval within 60 days, any proposed amendments made to the closure plan.
- d. The owner or operator shall notify the Department at least 180 days before the date he expects to begin closure.

2. Time Allowed for Closure

- a. Within 90 days after receiving the final volume of hazardous wastes or 90 days after approval of the closure plan if that is later, the owner or operator shall treat all hazardous wastes in storage or in treatment or remove them from the site in accordance with the approved closure plan.
- b. The owner or operator shall complete closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of waste or 180 days after approval of the closure plan, if that is later.

3. Disposal or Decontamination of Equipment

- a. When closure is completed all facility equipment and structures shall have been properly disposed of or decontaminated by removing all hazardous waste and residues.
- b. At closure, all hazardous waste and hazardous waste residues shall be removed from tanks, discharge control equipment, and discharge confinement structures in accordance with the approved closure plan.

- c. At closure, all hazardous waste and hazardous waste residues shall be removed from treatment processes and equipment, discharge control equipment, and discharge confinement structures in accordance with the approved closure plan.

4. Certification of Closure

When closure is completed, the owner or operator shall submit to the Department certification both by the owner or operator and by an independent engineer registered in California that the facility has been closed in accordance with the specifications in the approved closure plan.

R. Financial Responsibility

1. Cost Estimate for Facility Closure

- a. The owner or operator shall have a written estimate of the cost of closing the facility in accordance with the applicable closure requirements of this permit. The owner or operator shall keep this estimate, and all subsequent estimates, at the facility. The estimate shall equal the cost of closure at the point in the facility's operating life when the extent and manner of its operation would make closure the most expensive as indicated by its closure plan.
- b. The owner or operator shall prepare a new closure cost estimate whenever a change in the closure plan affects the cost of closure.
- c. By March 1 of each year, the owner or operator shall adjust the latest closure cost estimate using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in its SURVEY OF CURRENT BUSINESS. The inflation factor shall be calculated by dividing the latest published annual Deflator by the Deflator for the previous year. The result is the inflation factor.

The adjusted closure cost estimate shall equal the latest closure cost estimate times the inflation factor.

- d. The adjusted closure cost estimate shall be submitted to the Department as part of the annual report required in item III.P.3.b.

2. Financial Assurance and Liability

a. Financial Assurance

The owner or operator shall demonstrate to the Department continuous compliance with applicable sections of Article 17, Title 22, CAC by providing documentation of financial assurance in at least the amount of the cost estimates required by permit conditions III. R.1.a.

b. Liability

The owner or operator shall demonstrate to the Department continuous compliance with H&S Code, Section 25245, and applicable sections of Article 17, Title 22, CAC, by providing documentation of liability coverage in the required amounts.

An owner/operator who fulfills the requirements above will be deemed to be without the required financial assurance and liability coverage in the event of a bankruptcy, insolvency, or a suspension or revocation of the license or charter of the issuing institution. The owner/operator must obtain liability coverage within 60 days of such events.

The owner/operator shall comply with all other financial responsibility and facility closure requirements of the Department when enacted.

IV. COMPLIANCE SCHEDULE

- A. Reports of compliance or noncompliance with interim or final requirements contained in any compliance schedule established or approved by the Department shall be submitted to the Department no later than 14 days following each scheduled date.
- B. The following compliance time schedule items must be met:

<u>Task</u>	<u>Completion Date</u>
Construction and Engineer's certification of the construction of the approved hazardous waste storage and treatment facility	March 29, 1986

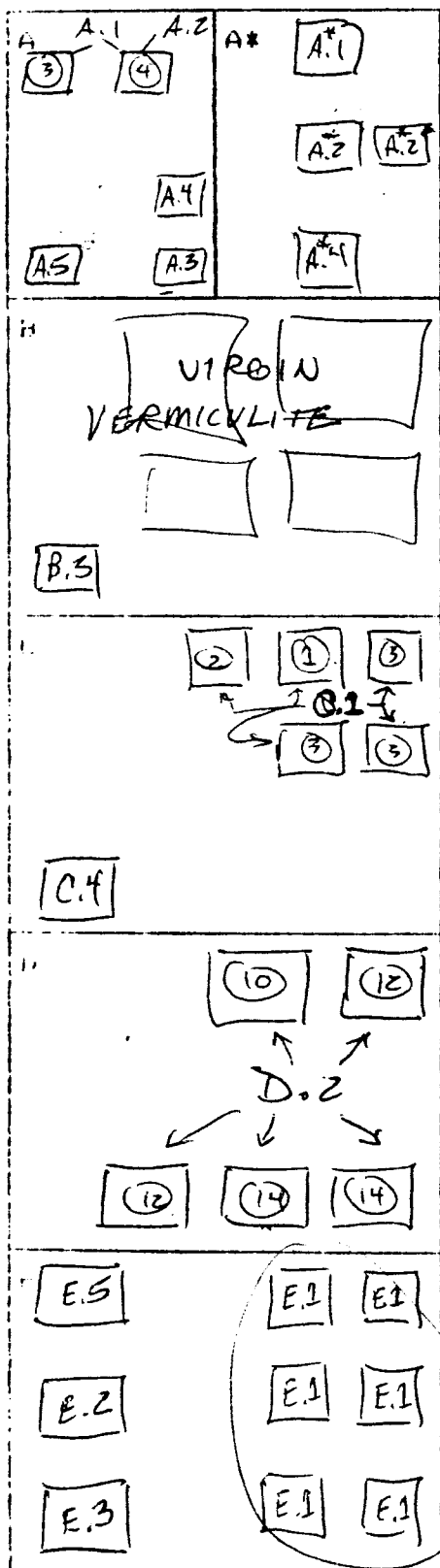
DAILY DRUM INVENTORY AND FLOOR PLAN SHEET

DATE: 3-12-90

DAY: Monday

TIME: 1200

BY: Chris Lilley



- A.1 AV Custom #89431558 (6) drums - CN - F007/F009 A*.1 Carst Cable #LA 1128201 (2) drums - D002
- A.2 Enthone #89431568 (1) drum - CN - D006/F009 A*.2 Carst Cable #89734065 (5) MT poly's - com. mat'l
- A.3 Ford Aerospace #89734010 (2) drums - CN - F007 A*.3
- A.4 Enthone #89431510 (3) drums - CN - D006/F009 A*.4 OPC (1) - Lab Sample Waste drum D002 OPC (1) - MT Containers doc
- A.5 OPC (1) drums ORN-E Solid (1) drum - MT Salvage A*.5
- B.1
- B.2
- B.3 OPC - (1) drum Carbide - oxidizer
- B.4
- B.5
- C.1 Continental Con #89625984 (9) RCRA MT Drums (3) F003 Combust. Liquid
- C.2
- C.3 (1) Flammable Solid, F001-F005, BR 33141
- C.4 OPC (1) Lab Sample Waste Drum F001-F005, Flam. Liq. (1) Empty Containers Previously Containing F001-F005
- C.5
- D.1
- D.2 OPC - Hazardous Waste Solid, N.O.S. ORN-E (62) drums - BR 34463
- D.3
- D.4
- D.5
- E.1 Golden Plating #89625982 - (24) drums - F008, OP10027
- E.2 Oil Process (5) drums - Residual, Last Contained F002
- E.3 Golden Plating #89625982 (3) drums - F008, OP10026
- E.4 (1) drum Golden Plating Manifest doc # 9446, D006, D008
- E.5 Oil Process - Poison B Solid - D003 - (1) drum

←-----NORTH

TOTAL BULK DRUMS ON HAND =

TOTAL LABPACK DRUMS ON HAND =

C-105

30 bags Vermiculite
 (3) Salvage (85 gallon)
 (100) - 20 gallon fibers

C-103

2 (100) - 30 gallon
 Above

Brown Trailer

60 bags Vermiculite
 (10) 20 gallon fibers
 (10) - 85 gallon Salvage
 (20) - buckets
 shrinkwrap

C-104

(14) - DOT 34-SS
 closed top poly
 white
 (5) - 85 gallon salvage
 poly steel
 (20) DOT E-7768-SS
 blue poly
 open top

~~C-105~~

~~C-103~~

Zotz

A.1	
A.2	
A.3	
A.4	
B.1	
B.2	
B.3	
B.4	
C.1	
C.2	
C.3	
C.4	
D.1	
D.2	
D.3	
D.4	
E.1	
E.2	
E.3	
E.4	
F.1	
F.2	
F.3	
F.4	

MISCELLANEOUS

DAILY DRUM INVENTORY AND FLOOD FLAG SHEET

DATE: 2/28/90 DAY: Wednesday TIME: 10:00 BY: Dean

(of 2)

A	A-1	3	A-2	3	A*	
	A-3	2				A-4
						2
B	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">0</div> <div style="font-size: 2em; margin-right: 10px;">V</div> <div>Vermic</div> </div>					
			4	4		
	C-2		2	4		
				4		
D	<div style="display: flex; align-items: center; justify-content: center;"> <div style="font-size: 2em; margin-right: 10px;">D</div> <div>-2</div> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;">1</div> </div>					
			3	4		
	E-3	2	4	4		
			4	4		
			3	4		

- A.1 Ford Aerospace #8973V010-2 Drums - Fed-Foot-Fed-0089
- A.2 Entonox #89431570-3 Drums - Food/Dock/FAM ENBY ENWBS
- A.3 OPC-080506850 - 2 Drums HAZARDOUS WASTE Solid NOS 9189
- A.4 OPC-#080506850 - 1 Drum - D02 Corrosive Liquid NOS
- A.5
- B.1
- B.2
- B.3
- B.4
- B.5
- C.1
- C.2 Continental Can #89625984 - F003 Flammable Liquid NOS
- C.3
- C.4
- C.5
- D.1
- D.2 OPC-080506850 - 1 Drum Oxidize UN-1453
- D.3
- D.4
- D.5
- E.1 Golden Plating Co. #89625982 - 27 Drums/F005/Cyanide R Q
- E.2
- E.3 OPC-080506850 - 1 Drum - F001/F005/WASTE Flammable Liquid NOS
- E.3 OPC #080506850 - 1 Drum/D02 - WASTE POISON - B-Solid UN-2811
- E.5

←-----NORTH

TOTAL BULK DRUMS ON HAND =
TOTAL LABPACK DRUMS ON HAND =

**This form to be completed before 5pm each day.

Box C-104

A-1

A-2

A-3

A-4

B-1

B

32-55 gallon POLY DRUMS

20-55 gallon OPEN TOP POLYS

5-85 gallon SALVAGE METAL DRUMS

14-55 gallon OVER PACK DRUMS

1-SCALE

B-2

B-3

B-4

Trailer —

C-1

C-2

C-3

C-4

D-1

D

65-Bags-OF Vermic

8-20-gallon FIBER DRUMS

10-55 gallon SALVAGE METAL DRUMS

18-5-gallon BUCKETS

10-ROLLS OF SHRINK WRAP

D-2

D-3

D-4

Box-C-103

F-4

Box-C-105

E-1

E-2

E-3

E-4

51-BAGS OF Vermic

145-20 gallon Fiber DRUMS

10-55 gallon GALLON

15-30-gallon FIBERS DRUMS

E-5

E-6

E-7

140-30 gallon FIBERS DRUMS

MISCELLANEOUS

LOCATION:

Drum Storage Area - ALBA

INSPECTED BY:

Chris Littey

DATE:

3-12-90

TIME:

1200

WASTE CONTAINER STORAGE AREA INSPECTION REPORT

1. Is Diked Storage Area free of structural deterioration? YES/NO
2. Is Canopy free of structural deterioration? YES/NO
3. Is Canopy securely anchored? YES/NO
4. Is adequate aisle space present between drums? YES/NO
5. Is each Container Storage Area free of puddled liquids? YES/NO
6. Is area around drum crush free from spills and debris? YES/NO
7. Is area around Container Storage Area free from debris? YES/NO
8. Are crushed drum rolloff boxes covered? YES/NO
9. Is an empty salvage drum nearby? YES/NO
10. Is unused absorbent material nearby? YES/NO
11. Are all drums in Storage Area tightly closed? YES/NO
12. Are all drums free from severe rusting? YES/NO
13. Are all drums free from bulging heads and seams? YES/NO
14. Are all drums free from leaks? YES/NO
15. Are all drums stored on pallets? YES/NO
16. Are all drums marked with a Hazardous Waste Label? YES/NO
17. Are all drums marked with a Begin Accumulation Date? YES/NO
18. Are all drum labels marked with their contents? YES/NO
19. Are Storage Area Placards properly describing waste contained? YES/NO
20. Are drums segregated by hazard class? YES/NO
21. Is the Daily Drum inventory completed and posted? YES/NO

If any of these items are marked NO, list item # with comments and description of actions taken to correct situation:

Continental Can and Gortler Plating - don't all have accumulation dates per EPA rules today.

Also - Check NW corner tie-downs.

LOCATION:

Dike Area

INSPECTED BY:

Oscar

DATE:

2/22/90

TIME:

10:00

WASTE CONTAINER STORAGE AREA INSPECTION REPORT

1. Is Diked Storage Area free of structural deterioration? ☒ YES ☐ NO
2. Is Canopy free of structural deterioration? ☒ YES ☐ NO
3. Is Canopy securely anchored? ☒ YES ☐ NO
4. Is adequate aisle space present between drums? ☒ YES ☐ NO
5. Is each Container Storage Area free of puddled liquids? ☒ YES ☐ NO
6. Is area around drum crush free from spills and debris? ☒ YES ☐ NO
7. Is area around Container Storage Area free from debris? ☒ YES ☐ NO
8. Are crushed drum rolloff boxes covered? ☒ YES ☐ NO
9. Is an empty salvage drum nearby? ☒ YES ☐ NO
10. Is unused absorbent material nearby? ☒ YES ☐ NO
11. Are all drums in Storage Area tightly closed? ☒ YES ☐ NO
12. Are all drums free from severe rusting? ☒ YES ☐ NO
13. Are all drums free from bulging heads and seams? ☒ YES ☐ NO
14. Are all drums free from leaks? ☒ YES ☐ NO
15. Are all drums stored on pallets? ☒ YES ☐ NO
16. Are all drums marked with a Hazardous Waste Label? ☒ YES ☐ NO
17. Are all drums marked with a Begin Accumulation Date? ☒ YES ☐ NO
18. Are all drum labels marked with their contents? ☒ YES ☐ NO
19. Are Storage Area Placards properly describing waste contained? ☒ YES ☐ NO
20. Are drums segregated by hazard class? ☒ YES ☐ NO
21. Is the Daily Drum inventory completed and posted? ☒ YES ☐ NO

If any of these items are marked NO, list item # with comments and description of actions taken to correct situation:

1 of 2

LOCATION Dike Area

INSPECTED BY: Oscar Gallegos

DATE: 1/13/90

TIME: 2:30

HAZARDOUS WASTE CONTAINERS

XX		YES	NO
CONTAINER CONDITION	ARE ANY OPEN?		X
	ARE ANY SEVERLY RUSTED?		X
	ARE ANY CONTAINER HEADS BULGING?		X
	ARE ANY LEAKING?		X

IF ANY OF THESE QUESTIONS WERE MARKED YES, COMMENTS:

DESCRIBE ACTIONS TAKEN TO CORRECT SITUATION:

XX		YES	NO
CONTAINER MARKINGS	BEGIN ACCUMULATION DATE MARKED?	X	
	HAZARDOUS WASTE NAME MARKED ON CONTAINERS	X	
	CONTENTS MARKED ON CONTAINERS?	X	

IF ANY OF THESE QUESTIONS WERE MARKED NO, THAN COMMENT:

DESCRIBE ACTIONS TAKEN TO CORRECT SITUATION:

2022

XX		YES	NO
CONTAINER STORAGE AREA	IS DIKED STORAGE AREA FREE OF STRUCTURAL DETERIORATION?	X	
	IS CANOPY FREE OF STRUCTURAL DETERIORATION?	X	
	IS CANOPY ANCHORED?	X	
	IS ADEQUATE AISLE SPACE PRESENT BETWEEN DRUMS TO ALLOW UNOBSTRUCTED MOVEMENT FOR EMERGENCY RESPONSE?	X	

IF ANY OF THESE QUESTIONS WERE MARKED NO, COMMENTS:

DESCRIBE ACTIONS TAKEN TO CORRECT SITUATION:

XX		YES	NO
EMERGENCY RESPONSE EQUIPMENT	IS A TELEPHONE EASILY ACCESSIBLE IN CASE OF AN EMERGENCY?	X	
	IS THE TELEPHONE IN WORKING ORDER?	X	
	IS AN EMPTY SALVAGE DRUM NEARBY?	X	
	IS AN UNUSED ABSORBENT MATERIAL NEARBY?	X	
	IS ALL PERSONNEL PROTECTIVE EQUIPMENT NEARBY?	X	
	✓ GLOVES/ ✓ BOOTS/ ✓ APRON/ ✓ GOGGLES/ ✓ RESPIRATORS		
	IS THE EYE WASH AND SHOWER IN WORKING CONDITIONS	X	no sawe
	IS A FIRE EXTINGUISHER READILY ACCESSIBLE?	X	
	IS THE FIRE EXTINGUISHER FULLY CHARGED?	X	
	IS THE FIRE EXTINGUISHER SEAL INTACT?	X	

IF NO, THEN COMMENT:

DESCRIBE ACTIONS TAKEN TO CORRECT SITUATION:

O P C W A S T E A N A L Y S I S P L A N

All hazardous waste coming in to Oil Process Company (OPC) undergoes extensive chemical and physical analysis. Prior to accepting waste for treatment and/or disposal, OPC submits a Waste Profile Document to the generator. The generator fills out this document completely and returns it, along with a representative sample of the waste, to OPC. Upon receiving the document and sample, OPC reviews all information and performs tests to confirm the analytical results on the Profile. All parameters tested for were selected based upon documentation from EPA, DOHS, SCAQMD, Los Angeles City Bureau of Sanitation, and the OPC Technical Staff.

If, upon review, the results are determined to be within permitted guidelines for acceptance, the material is scheduled to be delivered to the OPC treatment facility. When the truck containing the waste arrives at the treatment facility, it is logged in and a representative sample is obtained. The sample and manifest for this waste are delivered to the OPC laboratory where a Spot Check of selected constituents is performed. This Spot Check is performed on every waste shipment entering the facility. The results obtained are compared to the original profile and any discrepancies are noted. Material is reprofiled on an annual basis or when the waste stream changes significantly. If there are no discrepancies and if the constituents tested for are within the profiled guidelines, the waste is off-loaded into a designated area. If discrepancies with respect to the original profile are noted or if any of the constituents tested for exceed the permitted guidelines for acceptance, the generator is contacted and informed of the discrepancies and further evaluation is performed.

The plant processes the waste for treatment in the plant or shipment to an off site facility and various samples are obtained throughout this processing to make sure that the waste is handled in a safe fashion. Certain aqueous wastes are treated in the plant and samples are taken and analyzed at various stages of this treatment to make sure the treated wastewater maintains a certain predefined quality. When the treatment is finished, a representative sample of the product water is obtained from a designated storage tank and tested for selected constituents. If the tank passes this test, it is discharged to the sanitary sewer system. Loads of processed waste are tested for selected constituents prior to being shipped off site.

Below is an outline of the tests used for Profiles, Spot Checks, and Process Samples:

PROFILE METHODS

Constituents	Instrument Used	Method #
Heavy Metals	ICP	EPA 6010
Hexavalent Chromium	UV/VIS	Standard Method 312B
Non-Metallic Inorganics	IC	Standard Method 429
Purgeable Halocarbons	GC	EPA 601 & 8010
Purgeable Aromatics	GC	EPA 602 & 8020
Phenolics	GC	EPA 604 & 8040
Pesticides & PCB's	GC	EPA 608 & 8080
Base/Neutral & Acid Extractables	GC/MS	EPA 625 & 8270
pH	pH Meter	EPA 9040
Flash Point (closed cup)	Pensky-Martens Tester	EPA 1010
Heat of Combustion	Pensky-Martens Tester	

SPOT CHECK METHODS

Constituents	Instrument Used	Method #
Heavy Metals	ICP	EPA 6010
Hexavalent Chromium	UV/VIS	Standard Method 312B
Non-Metallic Inorganics	IC	Standard Method 429
Volatile Organics	GC	EPA 8015
Phenol	IC	Standard Method 429
pH	pH Meter	EPA 9040
Flash Point (closed cup)	Pensky-Martens Tester	EPA 1010
Heat of Combustion	Bomb Calorimeter	ASTM D3286-77

PROCESS METHODS

Constituents	Instrument Used	Method #
Heavy Metals	ICP	EPA 6010
Cyanide	UV/VIS	Standard Method 412D
Sulfide	UV/VIS	Standard Method 427C
Purgeable Halocarbons	GC	EPA 601
Purgeable Aromatics	GC	EPA 602
Base/Neutral & Acid Extractables	GC/MS	EPA 625
Oil & Grease	None	Standard Method 503A
pH	pH Meter	EPA 9040
BOD*	Incubator/DO Meter	Standard Method 507
Suspended Solids	None	Standard Method 209C
Radioactivity*	Radioactivity Counter	Standard Method 703
Heat of Combustion	Bomb Calorimeter	ASTM D3286-77

* Monthly Tests (sent to outside labs)

ICP=Inductively Coupled Plasma Emission Spectrophotometer,
 UV/VIS=Ultraviolet/Visible Spectrophotometer, GC=Gas Chromatograph,
 IC=Ion Chromatograph, GC/MS=Gas Chromatograph/Mass Spectrometer.

EPA Methods are approved by the US Environmental Protection Agency.
Standard Methods are approved by the American Public Health Association, the American Water Works Association, and the Water Pollution Control Federation.

ASTM Methods are approved by the American Society for Testing and Materials.

ATTACHMENT #5

OIL PROCESS COMPANY TRAINING RECORD-MASTER LIST

TRAINING COMPLETION DATES

* EMPLOYEE NAME	* SOCIAL SECURITY NO.	* DATE OF BIRTH	* DATE OF HIRE	* JOB TITLE (DEPT NO.)	* OSHA 40-HR * H2D. WST OPER/EMERG RESP	* RCHA 8-HR * ANNUAL UPDATE	* FA/CPR 8-HR * SPECIAL	* SUPERVISOR 8-HR * SPECIAL	* ON-THE-JOB/ * JOB SPECIFIC	* TERMINATION DATE
* AGUILAR, J.	* 560-84-5338	* 09/18/35	* 08/16/88	* LABORER/UTILITY	*	*	* 12/20/89	* N/A	*	*
* AHMADI, A.	* 545-59-5946	* 09/02/61	* 12/01/88	* HELPER (260)	*	*	*	* N/A	*	*
* ALVAREZ, C.	* 619-12-2880	* 09/14/65	* 05/27/86	* LAB ANALYST 3 (325)	*	*	*	* N/A	*	*
* ALVAREZ, E.	* 576-06-701	* 07/26/68	* 05/27/86	* UNIT OPERATOR A (250)	*	*	* 12/20/89	* N/A	*	*
* BARRON, E.	* 571-51-7987	* 09/01/57	* 12/20/84	* UNIT OPERATOR B (250)	*	*	*	* N/A	*	*
* CASAS, A.	* 570-51-2669	* 04/08/57	* 03/16/88	* UNIT OPERATOR A (250)	*	*	* 12/20/89	* N/A	*	*
* CUEVAS, A.	* 613-09-5437	* 11/05/69	* 08/16/89	* YARD OPERATOR (225)	* 02/16/90	* 02/16/90	* 12/20/89	* N/A	*	*
* FACUNDO, E.	* 568-69-2166	* 08/12/32	* 01/30/89	* SECRETARY (300)	*	*	*	* N/A	*	*
* GALLEGOS, G.	* 571-51-4706	* 10/14/60	* 03/30/89	* GEN. MAIN. MECH. 11(260)	* 02/16/90	* 02/16/90	* 02/14/90	* N/A	*	*
* GUTIERREZ, J.	* 568-81-3889	* 02/02/32	* 06/07/86	* YARD OPERATOR (700)	* 02/16/90	* 02/16/90	* 12/20/89	* N/A	*	*
*	*	*	*	* PLANT OPERATIONS COOR	* 12/15/89	* 12/15/89	* 12/13/89	* 08/15/89	*	*
*	*	*	*	* (250)	*	*	*	* N/A	*	*
* HERNANDEZ, E.	* 620-09-9276	* 08/26/65	* 11/27/88	* LAB ANALYST 1 (325)	*	*	* 12/20/89	* N/A	*	*
* HERNANDEZ, G.	* 582-61-8041	* 04/03/44	* 03/19/85	* WELDER/MAINT FITTER	*	*	*	* N/A	*	*
*	*	*	*	* (260)	*	*	*	* N/A	*	*
* JEFFERSON, M.	* 534-70-6214	* 10/13/55	* 12/08/86	* LAB ANALYST 3 (325)	*	*	*	* N/A	*	*
* LATHROP, E.	* 564-58-1859	* 06/06/42	* 05/31/86	* YARD OPERATOR (225)	* 12/15/89	* 12/15/89	* 12/13/89	* N/A	*	*
* MAJOR, C.	* 565-31-4116	* 06/18/62	* 03/09/88	* WELDER/MAIN FITTER	*	*	*	* N/A	*	*
*	*	*	*	* (260)	*	*	*	* N/A	*	*
* POURHASSANIAN, A.	* 557-27-1496	* 03/22/50	* 08/31/88	* FOREMAN (225)	* 08/04/89	* 08/04/89	* 07/31/89	* 08/16/89	*	*
* SALICHES, G.	* 217-78-5875	* 02/06/60	* 08/16/89	* YARD OPERATOR (700)	* 09/11/89	* 09/11/89	* 02/14/90	* N/A	*	*
* MADHOOALL, S.	* 082-54-4243	* 07/02/27	* 08/26/87	* PLANT MAINT COOR.	* 08/04/89	* 08/04/89	* 07/31/89	* 08/15/89	*	*
*	*	*	*	* LEAD MECH. (260)	*	*	*	* N/A	*	*
* TELLEZ, A.	* 573-96-9921	* 11/22/55	* 06/10/89	* YARD OPERATOR (225)	* 02/16/90	* 02/16/90	* 12/20/89	* N/A	*	*
* THONG, K.	* 580-18-6224	* 07/11/67	* 09/28/88	* SECRETARY (300)	*	*	* 02/14/90	* N/A	*	*
* VARGAS, C.	* 559-19-7734	* 02/06/62	* 09/11/89	* RECEPTIONIST (300)	*	*	*	* N/A	*	*
* VELA, J.	* 525-48-1177	* 08/14/68	* 04/21/87	* UNIT OPERATOR A(250)	* 02/16/90	* 02/16/90	* 12/20/89	* N/A	*	*
* ZEPEDA, C.	* 096-60-4569	* 04/03/52	* 10/12/88	* LAB ANALYST 1 (325)	* 02/16/90	* 02/16/90	* 02/14/90	* N/A	*	*
* COLEMAN, S.	* 550-55-1820	* 03/16/61	* 03/24/86	* LAB DIRECTOR (325)	* 08/04/89	* 08/04/89	* 07/31/89	* 08/15/89	*	*
* ENRIQUEZ, N.	* 613-14-0170	* 02/16/54	* 06/11/89	* ACC. PAY/ACC. REC	*	*	* 02/14/90	* N/A	*	*
* HARTMAN, J.	* 143-24-7365	* 07/7/32	* 10/03/88	* SALES	* 08/04/89	* 08/04/89	* 07/31/89	* 08/16/89	*	*
* HIATT, W.	* 539-32-2824	* 06/29/37	* 10/15/78	* SALES	* 12/15/89	* 12/15/89	* 12/13/89	* 08/16/89	*	*
* KIM, R.	* 565-58-1333	* 07/19/43	* 02/28/89	* LAB ANALYST 4 (325)	*	*	*	* N/A	*	*

TRAINING RECORDS-MASTER LIST

✱

✱

[illegible]

inhalation or skin absorption hazards that are immediately dangerous to life or health (IDLH), or other conditions that may cause death or serious harm, shall be identified during the preliminary survey and evaluated during the detailed survey. Examples of such hazards include, but are not limited to, confined space entry, potentially explosive or flammable situations, visible vapor clouds, or areas where biological indicators such as dead animals or vegetation are located.

(4) *Required information.* The following information to the extent available shall be obtained by the employer prior to allowing employees to enter a site:

- (i) Location and approximate size of the site.
- (ii) Description of the response activity and/or the job task to be performed.
- (iii) Duration of the planned employee activity.
- (iv) Site topography and accessibility by air and roads.
- (v) Safety and health hazards expected at the site.
- (vi) Pathways for hazardous substance dispersion.
- (vii) Present status and capabilities of emergency response teams that would provide assistance to hazardous waste clean-up site employees at the time of an emergency.
- (viii) Hazardous substances and health hazards involved or expected at the site, and their chemical and physical properties.

(5) *Personal protective equipment.* Personal protective equipment (PPE) shall be provided and used during initial site entry in accordance with the following requirements:

(i) Based upon the results of the preliminary site evaluation, an ensemble of PPE shall be selected and used during initial site entry which will provide protection to a level of exposure below permissible exposure limits and published exposure levels for known or suspected hazardous substances and health hazards, and which will provide protection against other known and suspected hazards identified during the preliminary site evaluation. If there is no permissible exposure limit or published exposure level, the employer may use other published studies and information as a guide to appropriate personal protective equipment.

(ii) If positive-pressure self-contained breathing apparatus is not used as part of the entry ensemble, and if respiratory protection is warranted by the potential hazards identified during the preliminary site evaluation, an escape self-contained breathing apparatus of at

least five minute's duration shall be carried by employees during initial site entry.

(iii) If the preliminary site evaluation does not produce sufficient information to identify the hazards or suspected hazards of the site, an ensemble providing protection equivalent to Level B PPE shall be provided as minimum protection, and direct reading instruments shall be used as appropriate for identifying IDLH conditions. (See Appendix B for a description of Level B hazards and the recommendations for Level B protective equipment.)

(iv) Once the hazards of the site have been identified, the appropriate PPE shall be selected and used in accordance with paragraph (g) of this section.

(6) *Monitoring.* The following monitoring shall be conducted during initial site entry when the site evaluation produces information that shows the potential for ionizing radiation or IDLH conditions, or when the site information is not sufficient reasonably to eliminate these possible conditions:

(i) Monitoring with direct reading instruments for hazardous levels of ionizing radiation.

(ii) Monitoring the air with appropriate direct reading test equipment (i.e., combustible gas meters, detector tubes) for IDLH and other conditions that may cause death or serious harm (combustible or explosive atmospheres, oxygen deficiency, toxic substances).

(iii) Visually observing for signs of actual or potential IDLH or other dangerous conditions.

(iv) An ongoing air monitoring program in accordance with paragraph (h) of this section shall be implemented after site characterization has determined the site is safe for the start-up of operations.

(7) *Risk identification.* Once the presence and concentrations of specific hazardous substances and health hazards have been established, the risks associated with these substances shall be identified. Employees who will be working on the site shall be informed of any risks that have been identified. In situations covered by the Hazard Communication Standard, 29 CFR 1910.1200, training required by that standard need not be duplicated.

Note to (c)(7).—Risks to consider include, but are not limited to:

- (a) Exposures exceeding the permissible exposure limits and published exposure levels.
- (b) IDLH concentrations.
- (c) Potential skin absorption and irritation sources.

(d) Potential eye irritation sources.

(e) Explosion sensitivity and flammability ranges.

(f) Oxygen deficiency.

(8) *Employee notification.* Any information concerning the chemical, physical, and toxicologic properties of each substance known or expected to be present on site that is available to the employer and relevant to the duties an employee is expected to perform shall be made available to the affected employees prior to the commencement of their work activities. The employer may utilize information developed for the hazard communication standard for this purpose.

(d) *Site control.*—(1) *General.* Appropriate site control procedures shall be implemented to control employee exposure to hazardous substances before clean-up work begins.

(2) *Site control program.* A site control program for protecting employees which is part of the employer's site safety and health program required in paragraph (b) of this section shall be developed during the planning stages of a hazardous waste clean-up operation and modified as necessary as new information becomes available.

(3) *Elements of the site control program.* The site control program shall, as a minimum, include: A site map; site work zones; the use of a "buddy system"; site communications including alerting means for emergencies; the standard operating procedures or safe work practices; and, identification of the nearest medical assistance. Where these requirements are covered elsewhere they need not be repeated.

(e) *Training.*—(1) *General.* (i) All employees working on site (such as but not limited to equipment operators, general laborers and others) exposed to hazardous substances, health hazards, or safety hazards and their supervisors and management responsible for the site shall receive training meeting the requirements of this paragraph before they are permitted to engage in hazardous waste operations that could expose them to hazardous substances, safety, or health hazards, and they shall receive review training as specified in this paragraph.

(ii) Employees shall not be permitted to participate in or supervise field activities until they have been trained to a level required by their job function and responsibility.

(2) *Elements to be covered.* The training shall thoroughly cover the following:

- (i) Names of personnel and alternates responsible for site safety and health;

(ii) Safety, health and other hazards present on the site;

(iii) Use of personal protective equipment;

(iv) Work practices by which the employee can minimize risks from hazards;

(v) Safe use of engineering controls and equipment on the site;

(vi) Medical surveillance requirements, including recognition of symptoms and signs which might indicate overexposure to hazards; and

(vii) The contents of paragraphs (C) through (J) of the site safety and health plan set forth in paragraph (b)(4)(ii) of this section.

(3) *Initial training.* (i) General site workers (such as equipment operators, general laborers and supervisory personnel) engaged in hazardous substance removal or other activities which expose or potentially expose workers to hazardous substances and health hazards shall receive a minimum of 40 hours of instruction off the site, and a minimum of three days actual field experience under the direct supervision of a trained, experienced supervisor.

(ii) Workers on site only occasionally for a specific limited task (such as, but not limited to, ground water monitoring, land surveying, or geo-physical surveying) and who are unlikely to be exposed over permissible exposure limits and published exposure limits shall receive a minimum of 24 hours of instruction off the site, and the minimum of one day actual field experience under the direct supervision of a trained, experienced supervisor.

(iii) Workers regularly on site who work in areas which have been monitored and fully characterized indicating that exposures are under permissible exposure limits and published exposure limits where respirators are not necessary, and the characterization indicates that there are no health hazards or the possibility of an emergency developing, shall receive a minimum of 24 hours of instruction off the site and the minimum of one day actual field experience under the direct supervision of a trained, experienced supervisor.

(iv) Workers with 24 hours of training who are covered by paragraphs (a)(3)(ii) and (a)(3)(iii) of this section, and who become general site workers or who are required to wear respirators, shall have the additional 16 hours and two days of training necessary to total the training specified in paragraph (e)(3)(i).

(4) *Management and supervisor training.* On-site management and supervisors directly responsible for, or who supervise employees engaged in,

hazardous waste operations shall receive 40 hours initial training, and three days of supervised field experience (the training may be reduced to 24 hours and one day if the only area of their responsibility is employees covered by paragraphs (e)(3)(ii) and (e)(3)(iii)) and at least eight additional hours of specialized training at the time of job assignment on such topics as, but not limited to, the employer's safety and health program and the associated employee training program, personal protective equipment program, spill containment program, and health hazard monitoring procedure and techniques.

(5) *Qualifications for trainers.* Trainers shall be qualified to instruct employees about the subject matter that is being presented in training. Such trainers shall have satisfactorily completed a training program for teaching the subjects they are expected to teach, or they shall have the academic credentials and instructional experience necessary for teaching the subjects. Instructors shall demonstrate competent instructional skills and knowledge of the applicable subject matter.

(6) *Training certification.* Employees and supervisors that have received and successfully completed the training and field experience specified in paragraphs (e)(1) through (e)(4) of this section shall be certified by their instructor or the head instructor and trained supervisor as having successfully completed the necessary training. A written certificate shall be given to each person so certified. Any person who has not been so certified or who does not meet the requirements of paragraph (e)(9) of this section shall be prohibited from engaging in hazardous waste operations.

(7) *Emergency response.* Employees who are engaged in responding to hazardous emergency situations at hazardous waste clean-up sites that may expose them to hazardous substances shall be trained in how to respond to such expected emergencies.

(8) *Refresher training.* Employees specified in paragraph (e)(1) of this section, and managers and supervisors specified in paragraph (e)(4) of this section, shall receive eight hours of refresher training annually on the items specified in paragraph (e)(2) and/or (e)(4) of this section, any critique of incidents that have occurred in the past year that can serve as training examples of related work, and other relevant topics.

(9) *Equivalent training.* Employers who can show by documentation or certification that an employee's work experience and/or training has resulted in training equivalent to that training

required in paragraphs (e)(1) through (e)(4) of this section shall not be required to provide the initial training requirements of those paragraphs to such employees. However, certified employees new to a site shall receive appropriate, site specific training before site entry and have appropriate supervised field experience at the new site. Equivalent training includes any academic training or the training that existing employees might have already received from actual hazardous waste site work experience.

(f) *Medical surveillance—(1) General.* Employers engaged in operations specified in paragraphs (a)(1)(i) through (a)(1)(iv) of this section and not covered by (a)(2)(iii) exceptions and employers of employees specified in paragraph (q)(9) shall institute a medical surveillance program in accordance with this paragraph.

(2) *Employees covered.* The medical surveillance program shall be instituted by the employer for the following employees:

(i) All employees who are or may be exposed to hazardous substances or health hazards at or above the permissible exposure limits or, if there is no permissible exposure limit, above the published exposure levels for these substances, without regard to the use of respirators, for 30 days or more a year;

(ii) All employees who wear a respirator for 30 days or more a year or as required by § 1910.134;

(iii) All employees who are injured due to overexposure from an emergency incident involving hazardous substances or health hazards; or

(iv) Members of HAZMAT teams.

(3) *Frequency of medical examinations and consultations.* Medical examinations and consultations shall be made available by the employer to each employee covered under paragraph (f)(2) of this section on the following schedules:

(i) For employees covered under paragraphs (f)(2)(i), (f)(2)(ii), and (f)(2)(iv):

(A) Prior to assignment;

(B) At least once every twelve months for each employee covered unless the attending physician believes a longer interval (not greater than biennially) is appropriate;

(C) At termination of employment or reassignment to an area where the employee would not be covered if the employee has not had an examination within the last six months;

(D) As soon as possible upon notification by an employee that the employee has developed signs or symptoms indicating possible

88379215

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8602; WITHIN CALIFORNIA CALL 1-800-862-3333

GENERATOR

TRANSPORTER

FACILITY

State of California—Health and Welfare Agency
Form Approved OMB No 2050-0039 (Expires 9-30-91)
Please print or type (Form designed for use on elite (12-pitch typewriter)

See Instructions on Back
and Front of Page

ATTACHMENT #6

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.
3. Generator's Name and Mailing Address		CHERRY TEXTRON 1501 N. Miller Street Anaheim, Calif. 92806	
4. Generator's Phone (714) 524-8440			
5. Transporter 1 Company Name		B. US EPA ID Number	
CUSTOM ENVIRONMENTAL TRANSP		01011C	
7. Transporter 2 Company Name		B. US EPA ID Number	
9. Designated Facility Name and Site Address		10. US EPA ID Number	
OIL PROCESS CO. 5756 Alba Street Los Angeles, CA 90058		1CA1D01510181016181510	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No.	13. Total Quantity
a. RQ, WASTE CORROSIVE SOLIDS, N.O.S. (K062) CORROSIVE MATERIAL UN 1759		01011C	1
b.			
c.			
d.			
J. Additional Descriptions for Materials Listed Above		K. Handling Codes for Wastes Listed Above	
K062, SPENT STEEL PICKL SOLIDS		a. b. c. d.	
15. Special Handling Instructions and Additional Information			
WEAR RUBBER GLOVES AND SAFETY GLASSES Box 417			
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.			
Printed/Typed Name		Signature	Month Day Year
DAVID H HUNTER		David H Hunter	10/31/89
17. Transporter 1 Acknowledgement of Receipt of Materials			
Printed/Typed Name		Signature	Month Day Year
STEVE ERICKSON		Steve Erickson	10/31/89
18. Transporter 2 Acknowledgement of Receipt of Materials			
Printed/Typed Name		Signature	Month Day Year
19. Discrepancy Indication Space			
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.			
Printed/Typed Name		Signature	Month Day Year

HAZARDOUS MATERIAL TRAINING

OPC employees will receive Health and Safety training as required by CALOSHA and DHS (24 hours initial training and 8 hour annual refresher training). Some or all of the following modules will be covered depending on individual work assignments.

I. HAZARDS POSED BY WASTE HANDLING OPERATIONS

A. Chemical Exposures

1. Several factors determine effects
 - a. substance
 - b. concentration
 - c. route of entry
 - d. duration of exposure
 - e. genetic background
 - f. personal lifestyle habits
 - g. health status
2. Inhalation exposures
 - a. lungs are vulnerable and good organ for absorbing materials
 - pass through lung tissue into bloodstream
 - contaminant transported to other vulnerable target organs of body
 - b. some atmospheric toxic chemicals may not be detected by human senses
 - colorless
 - odorless
 - no immediate symptoms
 - c. respiratory protection properly selected is required
 - training and fit-testing done
 - medical evaluations necessary
3. Direct skin and eye contact
 - a. some chemicals directly injure the skin and eye
 - irritants
 - corrosives
 - oxydizers
 - b. other pass through skin into bloodstream
 - transported to vulnerable organs
 - c. absorption is enhanced by abrasions, cuts, heat, and moisture.
 - d. eye is extremely vulnerable because chemicals can dissolve in its moist surface and be transported systemically to rest of body through the bloodstream
 - capillaries are very close to surface of the eye

ATTACHMENT #8

TREATMENT/STORAGE/DISPOSAL FACILITIES CEI CHECKLIST

SITE ID#: 275-238-1111

INSPECTION DATE: 8/12/90 10AM

SITE NAME: OPC

LOCATION: 575 ALBA STREET

LOS ANGELES, CA 90058
City

CA 90058
State Zip Code

LEAD INSPECTOR: PIERRE BODINIER

OFFICE: S.F.

INDEX FOR T/S/D'S CHECKLIST

Subpart & Page	Content	Subpart & Page	Content
270:		265:	Continued
1	INTERIM STATUS QUALIFICATIONS	K:	SURFACE IMPOUNDMENTS (S04)(T02)(D83)
2	LOSS OF INTERIM STATUS	L:	WASTE PILES (S03)
265:		M:	LAND TREATMENT (D81)
B1	WASTE ANALYSIS PLAN	N:	LANDFILLS (D80)
B3	SECURITY and INSPECTIONS	O:	INCINERATORS (T03)
B4	TRAINING	P1	OTHER THERMAL TREATMENT (T04)
B5	IGNITABLE/REACTIVE/INCOMP.WASTE	P2	OPEN BURNING/OPEN DETONATION (T04)
C:	PREPAREDNESS AND PREVENTION	Q:	OTHER Chemical/Phys/Bio treatment (T04)
D1	CONTINGENCY PLAN	266:	C1 RECYCLABLE MTLs/Used as disposal
D2	" - Emergency Coordinator	D1	HW BURNED FOR ENERGY RECOVERY
D4	" - Reporting	E1	USED OIL " " " "
E1	MANIFEST SYSTEM & RECORD KEEPING	F1	Precious METALS RECLAMATION
E2	OPERATING RECORDS	G1	Lead-acid BATTERY RECLAMATION
E4	BIENNIAL REPORT		
E5	GENERATORS	268:	LAND DISPOSAL RESTRICTIONS
F1	GROUND WATER MONITORING	280:	UNDERGROUND <u>PRODUCT</u> STORAGE TANKS
F3	FACILITIES AFFECTING GW QUALITY		
G:	CLOSURE & POST-CLOSURE		
H1	COST EST. & FINANCIAL ASSURANCE		
H5	LIABILITY REQUIREMENTS		
I:	CONTAINERS (S01)		
J:	HW TANKS (S02)(T01)		
		Also Completed:	
		Transporter	

LINE OUT ITEMS NOT APPLICABLE TO THIS FACILITY

Facility Representatives:

RON REED - GEN MANAGER
DESMOND PHILLIP - PLANT ENGINEER
MIKIE VALLIERE
CHRIS LILLEY
TOM MARSHALL
DENNIS SAULTZ

Other Inspectors:

MARTIN WATERS
JOHN BOLIVE

Documents Copied or Requested:

Areas Present / Inspected:

Facility Recipient
of Report _____

Mailing Address
(if different) _____

Land Disposal Restrictions - Continued
(Part 268)

RESTRICTED WASTES AND EFFECTIVE DATES:

Where wastes are in more than one category, the most restrictive standards apply.

<u>Spent Solvents:</u>	(except injection wells)	<u>Effective Date:</u>
F001 through F005 spent solvent wastes that do not meet the Table CCWE 268.41 treatment standards (next page) and are not listed below		11/8/86
F001-F005 solvent wastes generated solely by small quantity generators of between 100-1000 kg/mo., or in total concentrations of less than 1% (see 268.30(a)(3-4))		11/8/88
F001-5 solvent wastes generated from a CERCLA response action or RCRA corrective action (non-soil or debris)		"
F001-F005 solvent wastes which are contaminated soil or debris generated from a CERCLA response action or RCRA corrective action under Subtitle C, where the disposal unit meets 268.5(h)(2) minimum technology requirements		8/8/90

Dioxin-Containing Wastes:

F020, F021, F022, F023, F026, F027, F028 dioxin-containing wastes that do not meet the treatment standards (next page) and are not listed below	11/8/88
F020-23 and F026-28 dioxin-containing wastes which are contaminated soil or debris generated from a CERCLA response action or RCRA corrective action under Subtitle C, where the disposal unit meets 268.5(h)(2) minimum technology requirements	8/8/90

Land Disposal Restrictions - Continued
(Part 268)

F001-F005 spent solvents.

Treatment standards effective
11/8/86.

	Treatment Standard (mg/l)	
	Wastewaters	All Other Wastes*
Acetone	0.05	0.59
n-Butyl alcohol	5.00	5.00
Carbon disulfide	1.05	4.81
Carbon tetrachloride	0.05	0.96
Chlorobenzene	0.15	0.05
Cresols	2.82	0.75
Cresylic acid	2.82	0.75
Cyclohexanone	0.125	0.75
1,2-Dichlorobenzene	0.65	0.125
Ethyl acetate	0.05	0.75
Ethyl benzene	0.05	0.053
Ethyl ether	0.05	0.75
Isobutanol	5.00	5.00
Methanol	0.25	0.75
Methylene chloride	0.20	0.96
Methylene chloride from pharmaceutical industry	12.70 *	0.96
Methyl ethyl ketone	0.05	0.75
Methyl isobutyl ketone	0.05	0.33
Nitrobenzene	0.66	0.125
Pyridine	1.12	0.33
Tetrachloroethylene	0.079	0.05
Toluene	1.12	0.33
1,1,1-Trichloroethane	1.05	0.41
1,2,2-Trichloroethane	1.05	0.96
1,1,2-Trifluoroethane	1.05	0.96
Trichloroethylene	0.062	0.091
Trichlorofluoromethane	0.05	0.96
Xylene	0.05	0.15

* The treatment standards in this treatability group are based on incineration.

F020, F021, F022, F023, F026, F027 or F028 dioxin containing wastes.

These treatment standards become effective 11/8/88.

	Treatment Standard
HxCDD-All Hexachlorodibenzo-p-dioxins	< 1 ppb
HxCDF-All Hexachlorodibenzofurans	< 1 ppb
PeCDD-All Pentachlorodibenzo-p-dioxins	< 1 ppb
PeCDF-All Pentachlorodibenzofurans	< 1 ppb
TCDD-All Tetrachlorodibenzo-p-dioxins	< 1 ppb
TCDF-All Tetrachlorodibenzofurans	< 1 ppb
2,4,5-Trichlorophenol	< 0.05 ppm
2,4,6-Trichlorophenol	< 0.05 ppm
2,3,4,6-Tetrachlorophenol	< 0.10 ppm
Pentachlorophenol	< 0.01 ppm

Note: Where a single constituent is addressed under more than one rulemaking, the applicable treatment standard or prohibition level is that for the more specific waste stream.

* Expired 8/17/88. 0.20 mg/l standard now applies.

Land Disposal Restrictions - Continued
(Part 268)

"California List" wastes: (except in an injection well)

<u>CA Waste Code</u>	<u>Restricted Waste:</u>	<u>Effective date:</u>
711	Liquids with cyanides > 1000 mg/l	7/8/87
721 2004	" " arsenic > 500 mg/l	"
722 2006	" " cadmium > 100 mg/l	"
723 2007	" "chromium (VI) > 500 mg/l	"
724 2008	" " lead > 500 mg/l	"
725 2009	" " mercury > 20 mg/l	"
726	" " nickel > 134 mg/l	"
727 2010	" " selenium > 100 mg/l	"
728	" " thallium > 130 mg/l	"
731	" " PCBs > 50 mg/L	"

791 Liquid H.W. having a pH \leq 2 7/8/87

741 Liquid H.W. that is primarily water and contain HOCs in total concentration \geq 1,000 mg/l and less than 10,000 mg/l HOCs (listed on p.268: X) "

751 H.W. having > 1,000 ppm HOCs, that is not primarily water, and after 7/8/87 the disposal unit met 268.5(h)(2) minimum tech. requirements 11/8/88

Contaminated soil or debris not resulting from a CERCLA response action or RCRA corrective action, and after 7/8/87 the disposal unit met 268.5(h)(2) requirements 7/8/89

Contaminated soil or debris resulting from a CERCLA response action or RCRA corrective action, and after 11/8/88 the disposal unit meets 268.5(h)(2) requirements 11/8/90

Note: The prohibitions and effective dates above do not apply where a specified HOC is listed in 268 Subpart C (e.g. a H.W. chlorinated solvent under F001-5, or a 1st 3rd K086 solvent wash) 268.32(h)

First Third Wastes: (except in an injection well) Effective Date:

First Third wastes, types, and concentrations listed in the following pages, and not detailed below 8/8/88

"Soft hammer" wastes with a valid demonstration and certificate 5/8/90

K048-52 and K061 wastes containing 15% zinc or greater, and after 8/8/88 are disposed of in a 268.5(h)(2) minimum tech. unit 8/8/90

Contaminated soils and debris with treatment standards based on incineration, and after 8/8/88 are disposed of in a 268.5(h)(2) minimum tech. unit 8/8/90

Various "soft hammer" wastewater residues with <1% TOC and <1% suspended solids: metals recovery or precipitation, cyanide destruction, carbon absorption, chemical oxidation, steam stripping, biodegradation, incineration or other direct thermal destruction. (268.12(b)) 5/8/90

Leachate from the storage, disposal, or treatment of "soft hammer" wastes 5/8/90

First Third-only mixed radioactive/hazardous wastes 5/8/90

Land Disposal Restrictions:
(Part 268)

	<u>Yes</u>	<u>No</u>	<u>Comments</u>
Did the facility handle any waste restricted from land disposal* since its effective prohibition date: 268.1(b) (See attached listings)			
F001 through F005 spent solvents?	_____	_____	_____
F020 through F026-28 Dioxins?	_____	_____	_____
"California List" wastes?	✓	_____	_____
First Third scheduled wastes?	✓	_____	_____
Second Third scheduled wastes?	✓	_____	_____

Exemptions: Are the prohibited wastes exempted from land disposal restrictions because:

The waste is from conditionally-exempt small quantity generators? 268.1(c)(4) N/A ✓ _____

A farmer is disposing of waste pesticides in accordance with 262.70? 268.1(c)(5) _____ ✓ _____

An "imminent endangerment" waiver has been granted under 121(d)(4) of CERCLA? 268.1(d) _____ ✓ _____

If no restricted wastes were handled after the effective dates or an above exemption applies to all restricted wastes handled, do not complete remainder of this section.

Exceptions: Can the restricted wastes continue to be land disposed because:

A case-by-case extension has been granted under Subpart C or 268.5, for the wastes handled? 268.1(c)(1)(all), N/A _____
268.30(d)(3)(F001-5), 268.31(d)(3)(dioxins),
268.32(g)(2)(CA list), 268.33(e)(3)(1st 3rd)(2nd 3rd), 268.1(c)(2)

An exemption has been granted because the waste is certified treated by the best demonstrated available technology (BDAT)? 268.44(a) N/A _____

*Land disposal means placement in or on the land, including a landfill, surface impoundment, waste pile, land treatment facility, salt dome formation, underground mine or cave, injection well, or placement in a concrete vault or bunker for disposal. 268.2(a) Injection wells are being covered under a separate schedule.

Land Disposal Restrictions:- Continued
(Part 268)

	<u>Yes</u>	<u>No</u>	<u>Comments</u>
A generator certifies a good-faith effort in compliance with 268.8 "soft-hammer" regulations? 268.1(c)(5)	✓		
If any of the preceding exceptions apply, the attached effective 268 Subpart C dates and concentrations, Subpart D standards and Subpart E storage restrictions do not apply. Waste analysis and applicable generator certification requirements still pertain.			

Has the handler not merely diluted the restricted waste or treatment residue in order to achieve compliance? 268.3

✓

Storage:

Are restricted wastes only being stored where: 268.50-

(a)(1) A generator is using tanks or containers while accumulating a sufficiently large batch to properly recover, treat, or dispose?

✓

(a)(2) A TSD is accumulating a batch as above? and:

(i) Each container is marked with the contents and accumulation start date?

✓

See app of Tank Data

(ii) Each tank is marked with the contents, accumulation start date, quantity of HW, and/or the information is in the operating record?

✓

(c) The TSD can prove that any storage over one year was solely for the purpose of necessary accumulation? or:

N/A

Storage is for less than 1 year

(d) The wastes are subject to an approved no-migration petition, case-by-case extension, a nation wide variance, or a valid "soft hammer" 268.8 certification?

N/A

(e) The stored wastes already meet any applicable treatment, concentration, or waiver standards?

N/A

(f) After 7/8/87, are liquid HW over 50 ppm PCBs stored for less than a year, and in a 761.65(b) (TSCA) complying storage area?

✓

No PCB HW. one observed to be stored during this response

See p. 268:8 for off-site storage facility record keeping requirements.

Land Disposal Restrictions:- Continued
(Part 268)

Generators: Waste Analysis

Yes

No

Comments

If restricted wastes are generated on-site, has the generator, using knowledge or analysis, determined if the waste is restricted from land disposal?
268.7(a)

☒

(See Appendix #)
See Waste Analysis
Plan - No description of
Inorganic Hazardous Waste
Sludges.

Was the Paint Filter Liquids Test used to determine if waste sludges and solids were CA list liquids? 268.32(i)

☒

Not mentioned in W.A.P.

Did the generator determine if liquid CA list wastes sludges and solids were CA list liquids? 268.32(j)(1)

☒

Not mentioned

Did the generator determine if liquid CA list wastes containing PCBs or HOCs were prohibited? 268.32(j)(2)

☒

Did the generator determine whether a HW listed in 268.10, -.11, -.12, exceeds the applicable treatment standards specified in 268.44 & -.43 by testing a representative sample of the waste extract or the entire waste, or use knowledge of the waste?
268.34(i)(2)

☒

Has Waste Analysis

Where waste treatment standards are expressed as concentrations in the waste extract (268.41), did any analysis include the TCLP (268 Appendix I)? 268.33(g)

☒

Not mentioned in W.A.P.

Notices, Certifications, and Demonstrations:

If determined that the waste is restricted and requires treatment before land disposal, have they notified the treatment or storage facility with each shipment of waste? including: 268.7(a)(1)-

- (i) EPA HW ID number?
- (ii) Appropriate treatment standards and prohibitions?
- (iii) Manifest number for the waste?
- (iv) Available waste analysis data?

NOT INSPECTED

☒

h.w.
Manifests for waste
Sludges not inspected.

Describe that
W.A.P. does not
specify if these
tests are conducted
just for incoming
H.W. or for both
incoming & out-
going H.W.
See narrative going H.W.

Land Disposal Restrictions:- Continued
(Part 268)

	<u>Yes</u>	<u>No</u>	<u>Comments</u>
<p>If the waste is determined to be <u>restricted but not required further treatment</u>, has the generator submitted with each shipment to the treatment, storage or land disposal facility, a notice and a certification that the waste meets both treatment standards and applicable prohibitions?</p>			
268.7(a)(2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<p>Did the notification include: 268.7(a)(2)(i)-</p>			
(a) EPA HW ID number?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
(b) Appropriate treatment standards and prohibitions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
(c) Manifest number for the waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
(d) Available waste analysis data?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Was the following certification signed: 268.7(a)(2)(ii)-

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

If the generator's waste is subject to a national variance, an extension or an exemption, have they notified the receiving facility with each shipment of waste that the waste is not prohibited from land disposal? 268.7(a)(3)

Did the notice include: 268.7(a)(3)-			
(i) EPA HW ID number?	<input type="checkbox"/>	<input type="checkbox"/>	
(ii) Appropriate treatment standards and prohibitions?	<input type="checkbox"/>	<input type="checkbox"/>	
(iii) Manifest number for the waste?	<input type="checkbox"/>	<input type="checkbox"/>	
(iv) Available waste analysis data?	<input type="checkbox"/>	<input type="checkbox"/>	
(v) The date the waste is subject to prohibitions?	<input type="checkbox"/>	<input type="checkbox"/>	

NOTE: If the recipient of the generator's waste is not on the attached list (p. 12) of known land ban facilities, or if an off-site shipment without notification has occurred, indicate the accepting TSD facility on p. 12 for proper follow-up.

Land Disposal Restrictions:- Continued
(Part 268)

	<u>Yes</u>	<u>No</u>	<u>Comments</u>
If determined that the waste is a <u>First Third or Second Third</u> waste without <u>treatment standards</u> and not a CA list waste (and thus a "soft hammer" waste), have they notified the receiving facility with each shipment? including: 268.7(a)(4)-		<u>N/A</u>	<u>No Land Disposal</u>
(i) EPA HW ID number?			<u>W.157</u>
(ii) Appropriate certifications and the restrictions under 268.33(f) for "soft hammer" waste?			
(iii) Manifest number for the waste?			
(iv) Available waste analysis data?			
If determined that the waste is restricted based solely on knowledge, is all supporting data used in the determination maintained on-site in the generator's files? 268.7(a)(5)	<u>✓</u>		<u>HW sent to receiving all supporting HW storage records OK</u>
Has the generator retained on-site a copy of all notices, certifications, waste analysis data, and other Part 268 records for at least five years? 268.7(a)(6)	<u>✓</u>		
Generators of First Third and Second Third "soft hammer" wastes (268.33(f)) shipped for land disposal:			
Prior to shipment for land disposal, has the generator certified and submitted to the RA a demonstration of a good faith effort to locate and contract with treatment and recovery facilities for the practically available treatment which provides the greatest environmental benefit? 268.8(a)(1-2)		<u>N/A</u>	<u>No Land Disposal</u>
Did the demonstration include a list of facilities and representatives contacted, complete with addresses, phone numbers, and contact dates? 268.8(a)(2)		<u>N/A</u>	

Land Disposal Restrictions:- Continued
(Part 268)

	<u>Yes</u>	<u>No</u>	<u>Comments</u>
Was a copy of the demonstration submitted to the receiving facility with the first shipment of waste? 268.8(a)(3) or -(4)	_____	_____	N/A _____
Was a copy of the certification submitted with each shipment of waste? 268.8(a)(3) or -(4)	_____	_____	_____
Are copies of the demonstration and certification kept on-site for at least five years? 268.8(a)(3) or -(4)	_____	_____	_____
If the generator determined there is <u>no practical treatment</u> for his waste, did the demonstration include a written discussion and the following certification? 268.8(a)(2)(i)	_____	_____	_____
I certify under penalty of law that the requirements of 40 CFR 268.8(a)(1) have been met and that disposal in a landfill or surface impoundment is the only practical alternative to treatment currently available. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.			
If the generator determines that there <u>are practical treatments</u> for the waste, did they contract to use the technology that they demonstrated yields the greatest environmental benefits? 268.8(a)(2)(ii)	_____	_____	_____
Did they include the following certification? 268.8(a)(2)(ii)	_____	_____	_____
I certify under penalty of law that the requirements of 40 CFR 268.8(a)(1) have been met and that I have contracted to treat my waste (or otherwise provide treatment) by the practically available technology that yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.			
Has the generator immediately notified the RA of any changes in the conditions on which the certification was based? 268.8(b)(1)	_____	_____	D.L. _____

Land Disposal Restrictions:- Continued
(Part 268)

	<u>Yes</u>	<u>No</u>	<u>Comments</u>
If the RA invalidated a certification, has the generator immediately ceased shipments of wastes, informed all facilities that received the waste, and retain records of the communication on-site in their files? 268.8(b)(3)			
<u>Treatment Facilities: Waste Analysis</u>			
Has the facility tested their wastes as specified in their waste analysis plan (265.13)? 268.7(b)	✓		For Incoming Wastes not A.W. sludger generated by the Hm process.
Were the non-wastewater form of the following HWs listed in 268.10, 268.11, & 268.12, incinerated in accordance with the requirements of Part 264 Subpart O, or burned in industrial furnaces or boilers in accordance with applicable regulatory standards: K027, K039, K113, K114, K115, K116, P040, P041, P043, P044, P062, P085, P109, P111, V058, V087, V221 and V223? 268.43(3)		N/A	
Were the wastewater form of the following HWs listed in 268.10, 268.11, & 268.12, treated by carbon adsorption or incineration, or pretreatment followed by carbon adsorption: K027, K039, K113, K114, K115, K116, P040, P041, P043, P044, P062, P085, P109, P111, V058, V087, V221 and V223? 268.43(4)		N/A	
Where the treatment standards are expressed as concentrations in the waste extract (268.41), has the facility tested the treatment residues or extract (using the TCLP, 268 Appendix I) to assure they met the applicable treatment standards? 268.7(b)(1)			W.A.P. is not Unusable Clear

Land Disposal Restrictions:- Continued
(Part 268)

	<u>Yes</u>	<u>No</u>	<u>Comments</u>
For CA list-only wastes, were the applicable 268.32 Paint Filter Liquids Test, pH test, HOCs, and PCB tests performed? 268.7(b)(2)	—	✓	<i>Paint Filter Liquids Test not performed See WAP ASPCA#</i>
For wastes with treatment standards expressed as concentrations in the waste (268.43), was the treatment residue, not an extract, tested? 268.7(b)(3)	✓	—	—
Notifications and certifications:			
Has the treater submitted with each shipment to the land disposal facility, a notice including: 268.7(b)(4)			
(i) EPA HW ID number?	—	—	—
(ii) Appropriate treatment standards and prohibitions?	—	—	—
(iii) Manifest number for the waste?	—	—	—
(iv) Available waste analysis data?	—	—	—
Has the treatment facility submitted a signed certification with each shipment of waste or treatment residue to the land disposal facility stating that the treatment standards in 268 Subpart D were met? 268.7(b)(5)			
—	—	—	—
For wastes with treatment standards listed as concentrations (268.41 or .43) did the certification read: 268.7(b)(5)(i)			
—	—	—	—

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operations of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information. I believe that the treatment process has been operated and maintained properly so as to achieve the performance levels specified in 40 CFR 268 Subpart D without dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

Land Disposal Restrictions:- Continued
(Part 268)

Yes No Comments

For wastes with treatment standards listed as technologies (268.42) did the certification read:
268.7(b)(5)(ii)

N/A _____

I certify under penalty of law that waste has been treated in accordance with the requirements of 40 CFR 268.42. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

Treatment and Off-Site Storage facilities:

Where waste or treatment residues are sent off-site for further management, did the sender comply with the notification and certification requirements as the generator of the waste?
268.7(b)(6-7)

✓ _____

Where First Third and Second Third "soft hammer" wastes are treated or stored, has a copy of the generator's valid certification and demonstration been retained? 268.8(c)(2) and:

N/A _____

Has the treater or storer forwarded copies of the generator's certification and demonstration (if applicable) to the facility receiving the waste or treatment residues? 268.8(c)(2) and:

N/A _____

Has the treatment or recovery facility certified as follows with each shipment of waste that he has treated the waste in accordance with the generator's demonstration? 268.8(c)(1)

N/A _____

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operations of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with treatment as specified in the generator's demonstration. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.



Two 5000 gallon portable storage tanks, used for hazardous waste storage were not labeled as a hazardous waste storage tank. No weekly inspection performed.



Roll off bin had unsigned manifest and was not labeled hazardous waste.



Process Area





12/12/89
C. L. L.
D. S. S.
ALICET.

October 13, 1989

Mr. Jose Kou
Department of Health Services
Toxic Substances Control Div. (Region 3)
Permitting Unit
1405 N. San Fernando Blvd., Suite 300
Burbank CA 91504

Dear Mr. Kou:

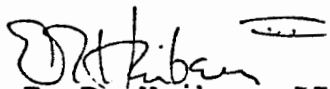
RE: OIL PROCESS COMPANY

In accordance with Section II, Article I, of the Oil Process Company Part B Permit, we as Owner and Operator are providing this letter to certify that the drummed storage area cover construction has been completed in compliance with the existing permit. Attached is a Certification by a Registered California Professional Engineer confirming that the permit requirements for this cover have been met.

Completion of the cover over the Drummed Wastes Storage Area resolves your concerns on this unit which were voiced in our meeting of July 26, 1989, memorialized in our letter of July 28, 1989, and confirmed in your letter of August 8, 1989. As noted in your August 8 letter, we will await your written approval prior to operation of this unit. We request your review and response as soon as possible.

Should you have any questions or care to arrange for inspection of the Drummed Storage Area, please contact Ron Reed at our facility at 213/585-5063.

Yours truly,


E. R. Heiberg III
President

ERH:jhm

Attachments

William A. Teipe & Associates, Inc.

3164 East La Palma Avenue - Suite C
Anaheim, California 92806-2811
(714) 630-3312

October 12, 1989

Mr. J. A. Hinton, P.E.
Manager, Facility Permitting Unit
Southern California Section
Toxic Substance Control Division (Region 3)
Department of Health Services
1405 North San Fernando Boulevard
Suite 300
Burbank, CA 91504

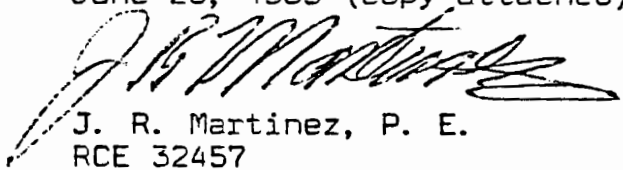
Attention: Facility Planning
Mr. Jose Kou

Reference: Engineer's Certification
Dil Process Company (CAD 050806850)
5756 Alba Street
Los Angeles County
Los Angeles, CA 90058

Gentlemen:

In accordance with the requirements of Section II, Article I of the Dil Process Company Part B permit, this letter is to advise that I have reviewed the drum storage area. I certify it meets the requirements of the existing permit regarding the cover over the drum storage area.

A drum pad cover has been constructed covering the entire area and extending 18" outside the perimeter of the drum pad. This cover will prevent rainwater from reaching the stored material as specified in the permit. The concrete pad and containment portion of the drum storage area was previously certified in our letter of June 28, 1989 (copy attached).


J. R. Martinez, P. E.
RCE 32457
Expires 12/31/92



5

William A. Teipe & Associates, Inc.

3164 East La Palma Avenue - Suite C
Anaheim, California 92808
(714) 630-3312

June 28, 1989

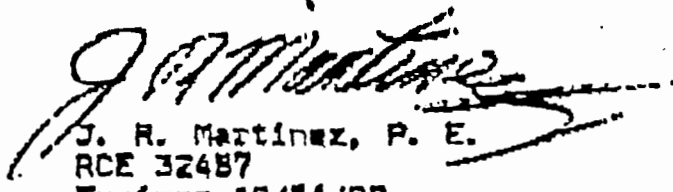
Mr. J. A. Hinton, P.E.
Manager, Facility Permitting Unit
Southern California Section
Toxic Substance Control Division
Department of Health Services
107 South Broadway, Room 7128
Los Angeles, CA 90012

Attention: Mr. Jose Kou

Reference: Engineer's Certification
Oil Process Company (CAD 050508850)
5755 Alba Street
Los Angeles County
Los Angeles, CA 90059

Gentlemen:

In accordance with design criteria contained in the Hazardous Facility Permit, Attachment A, Section 1, Paragraph A4, this letter is to certify that I have reviewed and approve the design and construction of the drum storage area for the intended use. The concrete storage area is divided into separate containment areas which are totally enclosed by concrete dikes.


J. R. Martinez, P. E.
RCE 32487
Expires 12/31/92



DEPARTMENT OF HEALTH SERVICES

TOXIC SUBSTANCES CONTROL DIVISION (REGION 3)

1405 N. SAN FERNANDO BOULEVARD, SUITE 300
BURBANK, CA 91504



OCT 30 1989

Revo
1/24/89

Mr. E.R. Heiberg III
President
Oil Process Company
5756 Alba Street
Los Angeles, CA 90058

Dear Mr. Heiberg:

DRUM STORAGE AREA, OIL PROCESS COMPANY, EPA ID NO. CAD 050806850

We have received your letter dated October 13, 1989 certifying the completion of the cover for the newly constructed storage pad. On October 19, 1989, Douglas Bautista and Henry Chui of my staff visited your facility to ascertain that the storage area conforms with the provisions stated in the permit.

Based on the results of the visual inspection of the newly constructed storage pad and cover and our analysis of the construction sketches and drawings provided by Mr. Ron Reed of your staff, the Department has concluded that the covered storage pad may be utilized to store IGNITABLE, CORROSIVE and TOXIC wastes in drums (limited to the type and quantity of wastes specified in the permit) provided that the following conditions are met:

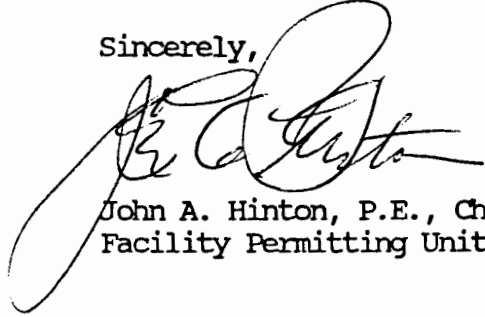
1. "No smoking" signs and hazardous wastes warning signs must be posted as specified in the California Code of Regulations, Title 22, Section 67103.
2. To keep the wheel-mounted cover from moving out of position, stoppers of mild steel channel (of at least 3/8 of an inch thick, reaching to at least 3/4 of the wheel diameter) must be installed to prevent each wheel from rolling and/or swiveling that could place the cover out of position. Hold down bolts (anchor bolts) must also be installed as an added precautionary measure.
3. To prevent rain water from sipping into the storage area, watersealing compound must be applied to the periphery of the head of the fasteners that hold the corrugated sheet to the beams.

Due to the absence of adequate walls to protect stored materials from coming in contact with water, the area can not be utilized for the storage of PCB's and/or WATER REACTIVE wastes. These conditions have been discussed in detail with Mr. Ron Reed on October 19, 1989.

Mr. E.R. Heiberg
Page 2

If you have any questions, please contact Douglas Bautista at (818) 567-3139.

Sincerely,

A handwritten signature in black ink, appearing to read 'John A. Hinton', is written over the word 'Sincerely,'.

John A. Hinton, P.E., Chief
Facility Permitting Unit

cc: Ron Reed
Oil Process Company
5756 Alba Street
Los Angeles, CA 90058

Gerard V. Hartig
Rollins Environmental Services (NJ) Inc.
P.O. Box 337
Bridgeport, New Jersey 08014

George Massih III
Rollins Environmental Services (DE) Inc.
One Rollins Plaza
P.O. Box 2349
Wilmington, Delaware 19899

James C. Brietlow
Hazardous Waste Management Division
U.S. Environmental Protection Agency
Region 9
215 Fremont Street (T-2-2)
San Francisco, CA 94105

Dave Osugi
Hazardous Waste Management Division
U.S. Environmental Protection Agency
Region 9
215 Fremont Street (T-2-2)
San Francisco, CA 94105

Registered Mail
P-757 544 744
Return Receipt Requested



ATTACHMENT #11

March 6, 1990

Department of Health Services
Lucille Van Ommering
Financial Responsibility Unit
Toxic Substances Control Program
714/744 P Street
P.O. Box 942732
Sacramento, CA 94234

RE: FINANCIAL RESPONSIBILITY
EPA I.D. #: CAD050806850

Dear Ms. Van Ommering:

Enclosed is a letter from Southern California Bank increasing our Letter of Credit to \$332,779 to fulfill Oil Process Company's requirement for evidence of adequate financial assurance for closure costs. The need for an increase was noted in your letter of 31 January 1990.

Please contact me at (213) 585-5063 should you have any questions.

Sincerely,

Ronald M. Reed
General Manager

RMR/kt

Enclosure

cc: Douglas Bautista
D.O.H.S. Permitting
Region 3

Scott Simpson
D.O.H.S. Surveillance & Enforcement Unit
Region 3

Ron Cronman
EPA - Region IX

Certified Mail



March 2, 1990

Toxic Substances Control Division
Department of Health Services
714/744 P. Street
Sacramento, California 92814

RE: Oil, Inc. DBA Oil Process Company
5756 Alba Street
Los Angeles, California 90058
Our Letter of Credit #422-85-27

Gentlemen:

Please be advised that our Letter of Credit No. 422-85-27 dated March 29, 1985 is hereby amended as follows:

The aggregate amount has been increased to \$332,779.00,
THREE HUNDRED THIRTY TWO THOUSAND SEVEN HUNDRED SEVENTY
NINE United States Dollars.

All other terms and conditions remain unchanged.

Sincerely,

A handwritten signature in cursive script, appearing to read 'D. Wheatley'.

David W. Wheatley
Executive Vice President/Chief Operating Officer

DW:es



TABLE 6.3
FINAL TREATMENT STANDARDS FOR FIRST- AND SECOND-THIRD WASTES

Hazardous waste description	Constituents of concern	Nonwastewater		Wastewater, total composition, mg/L ¹	Effective date ²
		Total composition, mg/kg ¹	TCLP, mg/L ¹		
F006 – Wastewater treatment sludges from electroplating operations	Cadmium	—	0.066	†	8/8/88 for metals; 7/8/89 for cyanides; 6/7/89 for injection of nonwastewaters
	Chromium (total)	—	5.2		
	Lead	—	0.51		
	Nickel	—	0.32		
	Silver	—	0.072		
	Cyanides (Total)	590	—		
	Cyanides (Amenable)	30	—		
F007 – Spent cyanide plating bath solutions from electroplating operations.	Cadmium	—	0.066	—	7/8/89; 6/8/91 for injection
	Chromium (Total)	—	5.2	0.32	
	Cyanides (Total)	590	—	1.9	
	Cyanides (Amenable)	30	—	0.10	
	Lead	—	0.51	0.04	
	Nickel	—	0.32	0.44	
	Silver	—	0.072	—	
F008 – Plating bath sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process.	Cadmium	—	0.066	—	7/8/89
	Chromium (Total)	—	5.2	0.32	
	Cyanides (Total)	590	—	1.9	
	Cyanides (Amenable)	30	—	0.10	
	Lead	—	0.51	0.04	
	Nickel	—	0.32	0.44	
	Silver	—	0.072	—	
F009 – Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	Cadmium	—	0.066	—	7/8/89
	Chromium (Total)	—	5.2	0.32	
	Cyanides (Total)	590	—	1.9	
	Cyanides (Amenable)	30	—	0.10	
	Lead	—	0.51	0.04	
	Nickel	—	0.32	0.44	
	Silver	—	0.072	—	
F010 – Quenching bath sludge from oil baths from metal heat treating operations where cyanides are used in the process.	Cyanides (Total)	1.5	—	1.9	6/8/89
	Cyanides (Amenable)	—	—	0.10	
F011 – Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	Cadmium	—	0.066	—	7/8/89 ⁶
	Chromium (Total)	—	5.2	0.32	
	Cyanides (Total)	110	—	1.9	
	Cyanides (Amenable)	9.1	—	0.10	
	Lead	—	0.51	0.04	
	Nickel	—	0.32	0.44	
	Silver	—	0.072	—	

TABLE 6.3
FINAL TREATMENT STANDARDS FOR FIRST- AND SECOND-THIRD WASTES – Continued

Hazardous waste description	Constituents of concern	Nonwastewater		Wastewater, total composition, mg/L ¹	Effective date ²
		Total composition, mg/kg ¹	TCLP, mg/L ¹		
F012 – Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.	Cadmium	—	0.066	—	7/8/89 ⁶
	Chromium (Total)	—	5.2	0.32	
	Cyanides (Total)	110	—	1.9	
	Cyanides (Amenable)	9.1	—	0.10	
	Lead	—	0.51	0.04	
	Nickel	—	0.32	0.44	
	Silver	—	0.072	—	
F024 – Wastes including but not limited to, distillation residues, heavy ends, tars and reactor clean-out wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. [This listing does not include light ends, spent filters and filter aids, spent desiccants, wastewater, wastewater treatment sludges, spent catalysts, and wastes listed in Section 261.32.].	2-Chloro-1,3-butadiene	0.28	—	0.28	6/8/89
	3-Chloropropene	0.28	—	0.28	
	1,1-Dichloroethane	0.014	—	0.014	
	1,2-Dichloroethane	0.014	—	0.014	
	1,2-Dichloropropane	0.014	—	0.014	
	cis-1,3-Dichloropropene	0.014	—	0.014	
	trans-1,3-Dichloropropene	0.014	—	0.014	
	Bis(2-ethylhexyl)phthalate	1.8	—	0.036	
	Hexachloroethane	1.8	—	0.036	
	Hexachlorodibenzofurans	0.001	—	0.001	
	Hexachlorodibenzo-p-dioxins	0.001	—	0.001	
	Pentachlorodibenzofurans	0.001	—	0.001	
	Pentachlorodibenzo-p-dioxins	0.001	—	0.001	
	Tetrachlorodibenzofurans	0.001	—	0.001	
	Chromium (Total)	—	—	0.35	
	Nickel	—	—	0.47	
K001 – Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol	Naphthalene	8.0	—	0.15	8/8/88; 6/7/89 for injection
	Pentachlorophenol	37	—	0.88	
	Phenanthrene	8.0	—	0.15	
	Pyrene	7.3	—	0.14	
	Toluene	0.14	—	0.14	
	Xylenes	0.16	—	0.16	
	Lead	—	0.51	0.037	
K004 – Wastewater treatment sludge from the production of zinc yellow pigments				†	8/8/88 ⁹
K005 – Wastewater treatment sludge from the production of chrome green pigments.	-----No land disposal based on no generation ¹³ -----			††††	6/8/89 for, surface disposal and underground injection of nonwastewaters

TABLE 6.3
FINAL TREATMENT STANDARDS FOR FIRST- AND SECOND-THIRD WASTES – Continued

Hazardous waste description	Constituents of concern	Nonwastewater		Wastewater, total composition, mg/L ¹	Effective date ²
		Total composition, mg/kg ¹	TCLP, mg/L ¹		
K007 – Wastewater treatment sludge from the production of iron blue pigments.	-----No land disposal based on no generation ¹³ -----			+++	6/8/89 for surface disposal and underground injection of nonwastewaters
K008 – Oven residue from the production of chrome oxide green pigments				+	8/8/88 ⁹
K009 – Distillation bottoms from the production of acetaldehyde from ethylene.	Chloroform	6.0	—	0.10 ⁸	6/8/89; 6/8/91 for injection of wastewaters
K010 – Distillation side cuts from the production of acetaldehyde from ethylene.	Chloroform	6.0	—	0.10 ⁸	6/8/89
K011 – Bottom stream from the wastewater stripper in the production of acrylonitrile.	Acetonitrile	1.8	—	+	6/8/89; 6/8/91 for injection of nonwastewaters
	Acrylonitrile	1.4	—		
	Acrylamide	23	—		
	Benzene	0.03	—		
	Cyanides (Total)	57	—		
K013 – Bottom stream from the acetonitrile column in the production of acrylonitrile.	Acetonitrile	1.8	—	+	6/8/89; 6/8/91 for injection of nonwastewaters
	Acrylonitrile	1.4	—		
	Acrylamide	23	—		
	Benzene	0.03	—		
	Cyanides (Total)	57	—		
K014 – Bottoms from the acetonitrile purification column in the production of acrylonitrile.	Acetonitrile	1.8	—	+	6/8/89 ¹¹
	Acrylonitrile	1.4	—		
	Acrylamide	23	—		
	Benzene	0.03	—		
	Cyanides (Total)	57	—		
K015 – Still bottoms from the distillation of benzyl chloride	Anthracene	-----No land disposal-----		1.0	8/8/88; 6/7/89 for injection of wastewaters
	Benzal chloride	-----based on no ash ⁷ -----		0.28	
	Benzo(b and/or k) fluoranthene			0.29	
	Phenanthrene			0.27	
	Toluene			0.15	
	Chromium (total)			0.32	
	Nickel			0.44	

TABLE 6.3
FINAL TREATMENT STANDARDS FOR FIRST- AND SECOND-THIRD WASTES – Continued

Hazardous waste description	Constituents of concern	Nonwastewater		Wastewater, total composition, mg/L ¹	Effective date ²
		Total composition, mg/kg ¹	TCLP, mg/L ¹		
K016 – Heavy ends or distillation residues from the production of carbon tetrachloride	Hexachlorobenzene	28	—	0.033	8/8/88; 6/7/89 for injection of K016 ≥ 1%; 6/7/91 for injection of K016 < 1%
	Hexachlorobutadiene	5.6	—	0.007	
	Hexachlorocyclopentadiene	5.6	—	0.007	
	Hexachloroethane	28	—	0.033	
	Tetrachloroethene	6.0	—	0.007	
K018 – Heavy ends from the fractionation column in ethyl chloride production	Chloroethane	6.0	—	0.007	8/8/88; 6/7/89 for injection
	Chloromethane	—	—	0.007	
	1,1-Dichloroethane	6.0	—	0.007	
	1,2-Dichloroethane	6.0	—	0.007	
	Hexachlorobenzene	28	—	0.033	
	Hexachlorobutadiene	5.6	—	0.007	
	Hexachloroethane	28	—	—	
	Pentachloroethane	5.6	—	0.007	
K019 – Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	1,1,1-Trichloroethane	6.0	—	0.007	8/8/88; 6/7/89 for injection
	Chlorobenzene	6.0	—	0.006	
	bis(2-Chloroethyl) ether	5.6	—	0.007	
	Chloroform	6.0	—	0.007	
	p-Dichlorobenzene	—	—	0.008	
	1,2-Dichloroethane	6.0	—	0.007	
	Fluorene	—	—	0.007	
	Hexachloroethane	28	—	0.033	
	Naphthalene	5.6	—	0.007	
	Phenanthrene	5.6	—	0.007	
	1,2,4,5-Tetrachlorobenzene	—	—	0.017	
	1,1,1-Trichloroethane	6.0	—	0.007	
	Tetrachloroethene	6.0	—	0.007	
K020 – Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	1,2,4-Trichlorobenzene	19	—	0.023	8/8/88; 6/7/89 for injection
	1,2-Dichloroethane	6.0	—	0.007	
	1,1,2,2-Tetrachloroethane	5.6	—	0.007	
	Tetrachloroethene	6.0	—	0.007	
K021 – Aqueous spent antimony catalyst from fluoromethanes production	-----No land disposal based on no generation ¹⁴ -----			†	8/8/88; 6/7/89 for injection of nonwastewaters ¹⁴
K022 – Distillation bottom tars from the production of phenol/acetone from cumene	Acetophenone	19	—	†	8/8/88; 6/7/89 for injection of nonwastewaters
	Phenol	12	—	—	
	Toluene	0.034	—	—	
	Sum of diphenylamine and diphenylnitrosamine	13	—	—	
	Chromium (total)	—	5.2	—	
	Nickel	—	0.32	—	

TABLE 6.3
FINAL TREATMENT STANDARDS FOR FIRST- AND SECOND-THIRD WASTES – Continued

Hazardous waste description	Constituents of concern	Nonwastewater		Wastewater, total composition, mg/L ¹	Effective date ²
		Total composition, mg/kg ¹	TCLP, mg/L ¹		
K023 – Distillation light ends from the production of phthalic anhydride from naphthalene.	Phthalic anhydride (measured as phthalic acid)	28	—	0.54	6/8/89
K024 – Distillation bottoms from the production of phthalic anhydride from naphthalene	Phthalic anhydride (measured as phthalic acid)	28	—	0.54	8/8/88; 6/7/89 for injection
K025 – Distillation bottoms from the production of nitrobenzene by the nitration of benzene	-----No land disposal based on no generation ¹⁴ -----			†	8/8/88; 6/7/89 for injection of nonwastewaters ¹⁴
K027 – Centrifuge and distillation residues from toluene diisocyanate production.		-----Incineration or----- ---fuel substitution ³ ---		Carbon adsorption ⁴ or incineration ³	6/8/89
K028 – Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	1,1-Dichloroethane	6.0	—	0.007	6/8/89
	trans-1,2-Dichloroethane	6.0	—	0.033	
	Hexachlorobutadiene	5.6	—	0.007	
	Hexachloroethane	28	—	0.033	
	Pentachloroethane	5.6	—	0.033	
	1,1,1,2-Tetrachloroethane	5.6	—	0.007	
	1,1,2,2-Tetrachloroethane	5.6	—	0.007	
	Tetrachloroethylene	6.0	—	0.007	
	1,1,1-Trichloroethane	6.0	—	0.007	
	1,1,2-Trichloroethane	6.0	—	0.007	
	Cadmium	—	—	6.4	
	Chromium (Total)	—	—	0.35	
	Lead	—	—	0.037	
	Nickel	—	—	0.47	
K029 – Waste from the product steam stripper in the production of 1,1,1-trichloroethane.	Chloroform	6.0	—	†	6/8/89 for nonwastewaters
	1,2-Dichloroethane	6.0	—	—	
	1,1-Dichloroethylene	6.0	—	—	
	1,1,1-Trichloroethane	6.0	—	—	
	Vinyl chloride	6.0	—	—	
K030 – Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene	o-Dichlorobenzene	—	—	0.008	8/8/88; 6/7/89 for injection
	p-Dichlorobenzene	—	—	0.008	
	Hexachlorobutadiene	5.6	—	0.007	
	Hexachloroethane	28	—	0.033	
	Hexachloropropene	19	—	—	
	Pentachlorobenzene	28	—	—	
	Pentachloroethane	5.6	—	0.007	
	1,2,4,5-Tetrachlorobenzene	14	—	0.017	
	Tetrachloroethene	6.0	—	0.007	
	1,2,4-Trichlorobenzene	19	—	0.023	

TABLE 6.3
FINAL TREATMENT STANDARDS FOR FIRST- AND SECOND-THIRD WASTES – Continued

Hazardous waste description	Constituents of concern	Nonwastewater		Wastewater, total composition, mg/L ¹	Effective date ²
		Total composition, mg/kg ¹	TCLP, mg/L ¹		
K036 – Still bottoms from toluene reclamation distillation in the production of disulfoton	Disulfoton	No land disposal based on no generation		0.025 ⁸	8/8/88 for surface disposal of nonwastewaters; 6/7/89 for injection of nonwastewaters ¹⁴ ; 6/8/89 for wastewaters
K037 – Wastewater treatment sludge from the production of disulfoton	Disulfoton	0.1	—	0.003	8/8/88;
	Toluene	28	—	0.028	6/7/89 for injection
K038 – Wastewater from the washing and stripping of phorate production.	Phorate	0.1	—	0.025 ⁸	6/8/89
K039 – Filter cake from the filtration of diethylphosphoro-dithioic acid in the production of phorate.		----Incineration or---- ---fuel substitution ³ ---		Carbon ⁴ adsorption ⁴ or incineration ³	6/8/89
K040 – Wastewater treatment sludge from the production of phorate.	Phorate	0.1	—	0.025 ⁸	6/8/89
K043 – 2,6-Dichlorophenol waste from the production of 2,4-D.	2,4-Dichlorophenol	0.38	—	0.049	6/8/89
	2,6-Dichlorophenol	0.34	—	0.013	
	Pentachlorophenol	1.9	—	0.22	
	Tetrachloroethene	1.7	—	0.006	
	Tetrachlorophenols (Total)	0.68	—	0.018	
	2,4,5-Trichlorophenol	8.2	—	0.016	
	2,4,6-Trichlorophenol	7.6	—	0.039	
	Hexachlorodibenzo-p-dioxins	0.001	—	0.001	
	Hexachlorodibenzofurans	0.001	—	0.001	
	Pentachlorodibenzo-p-dioxins	0.001	—	0.001	
	Pentachlorodibenzofurans	0.001	—	0.001	
	Tetrachlorodibenzo-p-dioxins	0.001	—	0.001	
	Tetrachlorodibenzofurans	0.001	—	0.001	
K044 – Wastewater treatment sludges from the manufacturing and processing of explosives	-----No land disposal based on reactivity-----				8/8/88; 6/7/89 for injection

TABLE 6.3
FINAL TREATMENT STANDARDS FOR FIRST- AND SECOND-THIRD WASTES – Continued

Hazardous waste description	Constituents of concern	Nonwastewater		Wastewater, total composition, mg/L ¹	Effective date ²
		Total composition, mg/kg ¹	TCLP, mg/L ¹		
K045 – Spent carbon from the treatment of wastewater containing explosives	-----No land disposal based on reactivity-----				8/8/88; 6/7/89 for injection
K046 – Wastewater treatment sludges from the manufacturing, formulation, and loading of lead-based initiating compounds – nonreactive subcategory	Lead	—	0.18	†	8/8/88; 6/7/89 for injection of nonreactive nonwastewaters
K047 – Pink/red water from TNT operations	-----No land disposal based on reactivity-----				8/8/88; 6/7/89 for injection
K048 – Dissolved air flotation (DAF) float from the petroleum refining industry	Benzene	9.5	—	0.011	8/8/90; 6/7/89 for injection
	Benzo(a)pyrene	0.84	—	0.047	
	Chrysene	2.2	—	0.043	
	Cyanides (total)	1.8	—	—	
	Di-n-butyl phthalate	4.2	—	0.060	
	Ethylbenzene	67	—	0.011	
	bis(2-Ethylhexyl) phthalate	37	—	0.043	
	Fluorene	—	—	0.050	
	Naphthalene	—	—	0.033	
	Phenanthrene	7.7	—	0.039	
	Phenol	2.7	—	0.047	
	Pyrene	2.0	—	0.045	
	Toluene	9.5	—	0.011	
	Xylenes	—	—	0.011	
	Arsenic	—	0.004	—	
	Chromium (total)	—	1.7	0.20	
	Lead	—	—	0.37	
	Nickel	—	0.048	—	
	Selenium	—	0.025	—	
K049 – Slop oil emulsion solids from the petroleum refining industry	Anthracene	6.2	—	0.039	8/8/90
	Benzene	9.5	—	0.011	
	Benzo(a)pyrene	0.84	—	0.047	
	Carbon disulfide	—	—	0.011	
	Chrysene	2.2	—	0.043	
	Cyanides (total)	1.8	—	—	
	2,4-Dimethyl phenol	—	—	0.033	
	Ethylbenzene	67	—	0.011	
	bis(2-Ethylhexyl) phthalate	37	—	0.043	
	Naphthalene	—	—	0.033	
	Phenanthrene	7.7	—	0.039	
	Phenol	2.7	—	0.047	

TABLE 6.3
FINAL TREATMENT STANDARDS FOR FIRST- AND SECOND-THIRD WASTES – Continued

Hazardous waste description	Constituents of concern	Nonwastewater		Wastewater, total composition, mg/L ¹	Effective date ²
		Total composition, mg/kg ¹	TCLP, mg/L ¹		
K049 – Continued	Pyrene	2.0	—	0.045	
	Toluene	9.5	—	0.011	
	Xylenes	—	—	0.011	
	Arsenic	—	0.004	—	
	Chromium (total)	—	1.7	0.20	
	Lead	—	—	0.037	
	Nickel	—	0.048	—	
	Selenium	—	0.025	—	
K050 – Heat exchanger bundle cleaning sludge from the petroleum refining industry	Benzo(a)pyrene	0.84	—	0.047	8/8/90
	Cyanides (total)	1.8	—	—	
	Phenol	2.7	—	0.047	
	Arsenic	—	0.004	—	
	Chromium (total)	—	1.7	0.20	
	Lead	—	—	0.037	
	Nickel	—	0.048	—	
	Selenium	—	0.025	—	
K051 – API separator sludge from the petroleum refining industry	Acenaphthene	—	—	0.050	8/8/90
	Anthracene	6.2	—	0.039	
	Benzene	9.5	—	0.011	
	Benzo(a)anthracene	1.4	—	0.043	
	Benzo(a)pyrene	0.84	—	0.047	
	Chrysene	2.2	—	0.043	
	Cyanides (total)	1.8	—	—	
	Di-n-butyl phthalate	4.2	—	0.060	
	Ethylbenzene	67	—	0.011	
	bis(2-Ethylhexyl)phthalate	37	—	0.043	
	Fluorene	—	—	0.050	
	Naphthalene	—	—	0.033	
	Phenanthrene	7.7	—	0.039	
	Phenol	2.7	—	0.047	
	Pyrene	2.0	—	0.045	
	Toluene	9.5	—	0.011	
	Xylenes	—	—	0.011	
	Arsenic	—	0.004	—	
	Chromium (total)	—	1.7	0.20	
	Lead	—	—	0.037	
	Nickel	—	0.048	—	
	Selenium	—	0.025	—	
K052 – Total bottoms (leaded) from the petroleum refining industry	Benzene	9.5	—	0.011	8/8/90
	Benzo(a)pyrene	0.84	—	0.047	
	o-Cresol	2.2	—	0.011	
	p-Cresol	0.90	—	0.011	
	Cyanides (total)	1.8	—	—	
	2,4-Dimethyl phenol	—	—	0.033	
	Ethylbenzene	67	—	0.011	
	Naphthalene	—	—	0.033	
	Phenanthrene	7.7	—	0.039	

TABLE 6.3
FINAL TREATMENT STANDARDS FOR FIRST- AND SECOND-THIRD WASTES – Continued

Hazardous waste description	Constituents of concern	Nonwastewater		Wastewater, total composition, mg/L ¹	Effective date ²
		Total composition, mg/kg ¹	TCLP, mg/L ¹		
K052 (Continued)	Phenol	2.7	—	0.047	
	Toluene	9.5	—	0.011	
	Xylenes	—	—	0.011	
	Arsenic	—	0.004	—	
	Chromium (total)	—	1.7	0.20	
	Lead	—	—	0.037	
	Nickel	—	0.048	—	
	Selenium	—	0.025	—	
K060 – Ammonia-still lime sludge from coking operations	-----No land disposal based on no generation ¹⁴ -----			†	8/8/88; 6/7/89 for injection of nonwaste-waters
K061 – Emission control dust/sludge from the primary production of steel in electric furnaces – high-zinc subcategory (≥ 15% zinc) interim standards effective until 8/8/90	Cadmium	—	0.14	†	8/8/88; 6/7/89 for injection of nonwaste-waters
	Chromium (total)	—	5.2		
	Lead	—	0.24		
	Nickel	—	0.32		
High-zinc subcategory effective after 8/7/90	-----No land disposal based on recycling-----			†††	8/8/90; 6/7/89 for injection of nonwaste-waters
Low-zinc subcategory (< 15% zinc)	Cadmium	—	0.14	†	8/8/88; 6/7/89 for injection of nonwaste-waters
	Chromium (total)	—	5.2		
	Lead	—	0.24		
	Nickel	—	0.32		
K062 – Spent pickle liquor generated by steel finishing operations at facilities with-in the iron and steel industry (SIC codes 331 and 332)	Chromium (total)	—	0.094	0.32	8/8/88;
	Nickel	—	—	0.44	8/8/90 for
	Lead	—	0.37	0.04	injection
K069 – Emission control dust/sludge from secondary lead smelting – noncalcium sulfate subcategory	-----No land disposal based on recycling ¹⁴ -----			†	8/8/88; 6/7/89 for injection of nonwaste-waters ¹⁴

TABLE 6.3
FINAL TREATMENT STANDARDS FOR FIRST- AND SECOND-THIRD WASTES – Continued

Hazardous waste description	Constituents of concern	Nonwastewater		Wastewater, total composition, mg/L ¹	Effective date ²
		Total composition, mg/kg ¹	TCLP, mg/L ¹		
K071 – Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is used	Mercury	—	0.025	0.030	8/8/90
K083 – Distillation bottoms from aniline production – no-ash subcategory	-----No land disposal based on no ash ⁷ -----			†	(⁷)
K086 – Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from the cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead – solvent washes subcategory only	Acetone	0.37	—	0.015	8/8/88; 6/7/89 for injection
	n-Butyl alcohol	0.37	—	0.031	
	Cyclohexanone	0.49	—	0.022	
	1,2-Dichlorobenzene	0.49	—	0.044	
	Ethyl acetate	0.37	—	0.031	
	Ethyl benzene	0.031	—	0.015	
	bis(2-Ethylhexyl) phthalate	0.49	—	0.044	
	Methanol	0.37	—	0.031	
	Methyl ethyl ketone	0.37	—	0.031	
	Methyl isobutyl ketone	0.37	—	0.031	
	Methylene chloride	0.037	—	0.031	
	Naphthalene	0.49	—	0.044	
	Nitrobenzene	0.49	—	0.044	
	Toluene	0.031	—	0.029	
	1,1,1-Trichloroethane	0.044	—	0.031	
	Trichloroethylene	0.031	—	0.029	
	Xylenes	0.015	—	0.015	
	Chromium (total)	—	0.094	0.32	
	Lead	—	0.37	0.037	
K087 – Decanter tank tar sludge from coking operations	Acenaphthalene	3.4	—	0.028	8/8/88; 6/7/89 for injection
	Benzene	0.071	—	0.014	
	Chrysene	3.4	—	0.028	
	Fluoranthene	3.4	—	0.028	
	Indeno (1,2,3-cd) pyrene	3.4	—	0.028	
	Naphthalene	3.4	—	0.028	
	Phenanthrene	3.4	—	0.028	
	Toluene	0.65	—	0.008	
	Xylenes	0.070	—	0.014	
	Lead	—	0.51	0.037	
K093 – Distillation light ends from the production of phthalic anhydride from ortho-xylene.	Phthalic anhydride (measured as phthalic acid)	28	—	0.54	6/8/89

TABLE 6.3
FINAL TREATMENT STANDARDS FOR FIRST- AND SECOND-THIRD WASTES – Continued

Hazardous waste description	Constituents of concern	Nonwastewater		Wastewater, total composition, mg/L ¹	Effective date ²
		Total composition, mg/kg ¹	TCLP, mg/L ¹		
K094 – Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	Phthalic anhydride (measured as phthalic acid)	28	—	0.54	6/8/89
K095 – Distillation bottoms from the production of 1,1,1-trichloroethane.	1,1,1,2-Tetrachloroethane	5.6	—	†	6/8/89 for surface disposal and underground injection of nonwaste-waters
	1,1,2,2-Tetrachloroethane	5.6	—		
	Tetrachloroethene	6.0	—		
	1,1,2-Trichloroethane	6.0	—		
	Trichloroethylene	5.6	—		
	Hexachloroethane	28	—		
	Pentachloroethane	5.6	—		
K096 – Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	1,3-Dichlorobenzene	5.6	—	†	6/8/89 for surface disposal and underground injection of nonwaste-waters
	Pentachloroethane	5.6	—		
	1,1,1,2-Tetrachloroethane	5.6	—		
	1,1,2,2-Tetrachloroethane	5.6	—		
	Tetrachloroethylene	6.0	—		
	1,2,4-Trichlorobenzene	19	—		
	Trichloroethylene	5.6	—		
	1,1,2-Trichloroethane	6.0	—		
K099 – Untreated wastewater from the production of 2,4-dichlorophenoxyacetic acid (2,4-D)	2,4-Dichlorophenoxy-acetic acid	1.0	—	1.0	8/8/88; 6/7/89 for injection
	Hexachlorodibenzo-p-dioxins	0.001	—	0.001	
	Hexachlorodibenzofurans	0.001	—	0.001	
	Pentachlorodibenzo-p-dioxins	0.001	—	0.001	
	Pentachlorodibenzofurans	0.001	—	0.001	
	Tetrachlorodibenzo-p-dioxins	0.001	—	0.001	
	Tetrachlorodibenzofurans	0.001	—	0.001	
K100 – Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting	-----No land disposal based on no generation ¹⁴ -----			††	8/8/88; 6/7/89 for injection of nonwaste-waters ¹⁴
K101 – Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds – low-arsenic (< 1%) subcategory	ortho-Nitroaniline	14	—	0.27	8/8/88; 6/7/89 for injection
	Arsenic	—	—	2.0	
	Cadmium	—	0.066	0.24	
	Chromium (total)	—	5.2	—	
	Lead	—	0.51	0.11	
	Mercury	—	—	0.027	
	Nickel	—	0.32	—	

TABLE 6.3
FINAL TREATMENT STANDARDS FOR FIRST- AND SECOND-THIRD WASTES – Continued

Hazardous waste description	Constituents of concern	Nonwastewater		Wastewater, total composition, mg/L ¹	Effective date ²
		Total composition, mg/kg ¹	TCLP, mg/L ¹		
K101 – Continued High-arsenic ($\geq 1\%$) subcategory	ortho-Nitroaniline	*	*	0.27	8/8/88; 6/7/89 for injection
	Arsenic			2.0	
	Cadmium			0.24	
	Lead			0.11	
	Mercury			0.027	
K102 – Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds – low-arsenic ($< 1\%$) subcategory	ortho-Nitrophenol	13	—	0.028	8/8/88; 6/7/89 for injection
	Arsenic	—	—	2.0	
	Cadmium	—	0.066	0.24	
	Chromium (total)	—	5.2	—	
	Lead	—	0.51	0.11	
	Mercury	—	—	0.027	
	Nickel	—	0.32	—	
High-arsenic (\geq) subcategory	ortho-Nitrophenol	*	*	0.028	8/8/88; 6/7/89 for injection
	Arsenic			2.0	
	Cadmium			0.24	
	Lead			0.11	
	Mercury			0.027	
K103 – Process residues from aniline extraction from the production of aniline	Aniline	5.6	—	4.5	8/8/88; 6/7/89 for injection
	Benzene	6.0	—	0.15	
	2,4-Dinitrophenol	5.6	—	0.61	
	Nitrobenzene	5.6	—	0.073	
	Phenol	5.6	—	1.4	
K104 – Combined wastewater streams generated from nitrobenzene/aniline production	Aniline	5.6	—	4.5	8/8/88; 8/8/90 for injection
	Benzene	6.0	—	0.15	
	Cyanides (total)	1.8	—	2.7	
	2,4-Dinitrophenol	5.6	—	0.61	
	Nitrobenzene	5.6	—	0.073	
	Phenol	5.6	—	1.4	
K113 – Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.		----Incineration or---- ---fuel substitution ³ ---		Carbon adsorption ⁴ or incineration ³	6/8/89
K114 – Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.		----Incineration or---- ---fuel substitution ³ ---		Carbon adsorption ⁴ or incineration ³	6/8/89

TABLE 6.3
FINAL TREATMENT STANDARDS FOR FIRST- AND SECOND-THIRD WASTES – Continued

Hazardous waste description	Constituents of concern	Nonwastewater		Wastewater, total composition, mg/L ¹	Effective date ²
		Total composition, mg/kg ¹	TCLP, mg/L ¹		
K115 ⁵ – Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	Nickel	----Incineration or---- ---fuel substitution ³ ---	Carbon adsorption ⁴ or incineration ³	6/8/89	
		—	0.32	0.47	
K116 – Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.		----Incineration or---- ---fuel substitution ³ ---	Carbon adsorption ⁴ or incineration ³	6/8/89	
P013 – Barium cyanide	Cyanide (Total)	110	—	1.9	6/8/89
	Cyanide (Amenable)	9.1	—	0.10	
P021 – Calcium cyanide	Cyanide (Total)	110	—	1.9	6/8/89
	Cyanide (Amenable)	9.1	—	0.10	
P029 – Copper cyanides	Cyanide (Total)	110	—	1.9	6/8/89
	Cyanide (Amenable)	9.1	—	0.10	
P030 – Soluble cyanide salts not elsewhere specified	Cyanide (Total)	110	—	1.9	6/8/89
	Cyanide (Amenable)	9.1	—	0.10	
P039 – Disulfoton	Disulfoton	0.1	—	0.025 ⁸	6/8/89
P040 – O,O-Diethyl-o-pyrazinyl phosphorothioate		----Incineration or---- ---fuel substitution ³ ---	Carbon adsorption ⁴ or incineration ³	6/8/89	
P041 – Diethyl-p-nitrophenyl phosphate		----Incineration or---- ---fuel substitution ³ ---	Carbon adsorption ⁴ or incineration ³	6/8/89	
P043 – Diisopropyl fluorophosphate		----Incineration or---- ---fuel substitution ³ ---	Carbon adsorption ⁴ or incineration ³	6/8/89	
P044 – Dimethoate		----Incineration or---- ---fuel substitution ³ ---	Carbon adsorption ⁴ or incineration ³	6/8/89	
P062 – Hexaethyltetraphosphate		----Incineration or---- ---fuel substitution ³ ---	Carbon adsorption ⁴ or incineration ³	6/8/89	
P063 – Hydrogen cyanide	Cyanide (Total)	110	—	1.9	6/8/89
	Cyanide (Amenable)	9.1	—	0.10	
P071 – Methyl parathion	Methyl parathion	0.1	—	0.025 ⁸	6/8/89
P074 – Nickel cyanide	Cyanide (Total)	110	—	1.9	6/8/89
	Cyanide (Amenable)	9.1	—	0.10	
	Nickel	—	0.32	0.44	

TABLE 6.3
FINAL TREATMENT STANDARDS FOR FIRST- AND SECOND-THIRD WASTES – Continued

Hazardous waste description	Constituents of concern	Nonwastewater		Wastewater, total composition, mg/L ¹	Effective date ²
		Total composition, mg/kg ¹	TCLP, mg/L ¹		
P085 – Octamethylpyrophosphoramide		----Incineration or---- ---fuel substitution ³ ---		Carbon ⁴ adsorption ⁴ or incineration ³	6/8/89
P089 – Parathion	Parathion	0.1	—	0.025 ⁸	6/8/89
P094 – Phorate	Phorate	0.1	—	0.025 ⁸	6/8/89
P097 – Famphur	Famphur	0.1	—	0.025 ⁸	6/8/89
P098 – Potassium cyanide	Cyanide (Total)	110	—	1.9	6/8/89
	Cyanide (Amenable)	9.1	—	0.10	
P099 – Potassium silver cyanide	Cyanide (Total)	110	—	1.9	6/8/89
	Cyanide (Amenable)	9.1	—	0.10	
	Silver	—	0.072	—	
P104 – Silver cyanide	Cyanide (Total)	110	—	1.9	6/8/89
	Cyanide (Amenable)	9.1	—	0.10	
	Silver	—	0.072	—	
P106 – Sodium cyanide	Cyanide (Total)	110	—	1.9	6/8/89
	Cyanide (Amenable)	9.1	—	0.10	
P109 – Tetraethyldithiopyrophosphate		----Incineration or---- ---fuel substitution ³ ---		Carbon ⁴ adsorption ⁴ or incineration ³	6/8/89
P111 – Tetraethylpyrophosphate		----Incineration or---- ---fuel substitution ³ ---		Carbon ⁴ adsorption ⁴ or incineration ³	6/8/89
P121 – Zinc cyanide	Cyanide (Total)	110	—	1.9	6/8/89
	Cyanide (Amenable)	9.1	—	0.10	
U028 – Bis-(2-ethylhexyl) phthalate	Bis-(2-ethylhexyl) phthalate	28	—	0.54	6/8/89
U058 – Cyclophosphamide		----Incineration or---- ---fuel substitution ³ ---		Carbon ⁴ adsorption ⁴ or incineration ³	6/8/89
U069 – Dibutyl phthalate	Di-n-butyl phthalate	28	—	0.54	6/8/89
U087 – 0,0-Diethyl-5-methyl dithiophosphate		----Incineration or---- ---fuel substitution ³ ---		Carbon ⁴ adsorption ⁴ or incineration ³	6/8/89
U088 – Diethyl phthalate	Diethyl phthalate	28	—	0.54	6/8/89
U102 – Dimethyl phthalate	Dimethyl phthalate	28	—	0.54	6/8/89
U107 – Di-n-octyl phthalate	Di-n-octyl phthalate	28	—	0.54	6/8/89
U190 – Phthalic anhydride	Phthalic anhydride (measured as phthalic acid)	28	—	0.54	(¹²)

TABLE 6.3
FINAL TREATMENT STANDARDS FOR FIRST- AND SECOND-THIRD WASTES – Continued

Hazardous waste description	Constituents of concern	Nonwastewater		Wastewater, total composition, mg/L ¹	Effective date ²
		Total composition, mg/kg ¹	TCLP, mg/L ¹		
U221 – Toluenediamine		----Incineration or---- ---fuel substitution ³ ---		Carbon adsorption ⁴ or incineration ³	6/8/89
U223 – Toluene diisocyanate		----Incineration or---- ---fuel substitution ³ ---		Carbon adsorption ⁴ or incineration ³	6/8/89
U235 – Tris (2,3-Dibromopropyl) phosphate	tris-(2,3-Dibromopropyl) phosphate	0.1	—	0.025 ⁸	6/8/89

¹All concentrations are maximums for any single grab sample, unless otherwise noted.

²Effective date applies to all forms of land disposal, including underground injection, unless otherwise noted.

³Incinerators must comply with 40 CFR 264 Subpart O or 265 Subpart O. Fuel substitution units must be in compliance with 40 CFR Part 266 Subpart D.

⁴Spent carbon and any other nonwastewater residues generated upstream from a carbon adsorption unit must meet the nonwastewater standards applicable to these wastes prior to land disposal. Carbon adsorption units must be operated such that breakthrough of TDI and (for hazardous wastes K027, K113-K116, U221, and U223) or organophosphorous compounds (for hazardous wastes K039, P040, P041, P043, P044, P062, P085, P109, P111, U058, and U087) does not occur. Selection of a surrogate or indicator compound as a measure of breakthrough should be considered on a case-by-case basis.

⁵K115 wastes must comply with both method-of-treatment requirements and the numerical treatment standards proposed for nickel.

⁶F011 and F012 nonwastewaters are subject to an interim cyanide standard (590 mg/kg total cyanide and 30 mg/kg amenable cyanide) from July 8, 1989 until December 8, 1989. Effective December 8, 1989, the final cyanide standard of 110 mg/kg total cyanide and 9.1 mg/kg amenable cyanide become effective. Effective date for F011 and F012 wastewater standards is 7/8/89.

⁷On May 2, 1989 [54 FR 18836] the nonwastewater forms of these wastes (K015 and K083) were rescheduled to the third-third list because it now appears that ash is generated during incineration of these wastes. However, the "no land disposal" standard was not formally rescinded. Federal Register, pages 25416-25423.

⁸Concentrations are maximums for any composite sample.

⁹No effective date has been established for underground injection of K004 and K008 nonwastewaters; therefore, these wastes may be injected until the hard hammer falls on May 8, 1990. A "no land disposal" standard for nonwastewaters was rescinded 6/23/89.

¹⁰This is a third-third waste for which restrictions on disposal by underground injection were promulgated on June 23, 1989.

¹¹K014 is a first-third waste for which EPA has not established an effective date applicable to underground injection.

¹²U190 is a third-third waste for which no effective date has been established; until this oversight is corrected, the treatment standards aren't applicable.

¹³Nonwastewaters generated by the process described in the waste listing description, and disposed after June 8, 1989, and not generated in the course of treating wastewater forms of these wastes.

¹⁴The "no land disposal" standard only applies to nonwastewater forms of these wastes generated by the process described in the waste listing and disposed after August 17, 1988. Other nonwastewater forms of these wastes, such as those disposed before August 17, 1988 or those that are generated during wastewater treatment are classified as third-third wastes, and are not yet subject to the land disposal restrictions, including disposal by underground injection. [54 FR 18837; 54 FR 25423]

†Wastewater treatment standards have not been established for these wastes; therefore, wastewaters are subject to the soft-hammer prohibitions.

††K100 wastewater is a third-third waste subject to the hard-hammer prohibitions effective May 8, 1990 unless a treatment standard is promulgated prior to this date.

†††Wastewater treatment standards have not been established for these wastes. Unless standards are promulgated before May 8, 1990, these wastewaters will be subject to the hard-hammer prohibitions on this date.

††††Wastewater treatment standards have not been established for these wastes. Because they are third-third wastes, they are not subject to soft-hammer prohibitions.

*Nonwastewater treatment standards have not been established for these wastes; therefore, they are subject to the soft-hammer prohibitions effective August 8, 1988.

Source: McCoy and Associates, Inc., adapted from 53 FR 31217-31221 and 54 FR 26649-26652.

be placed in minimum technology landfills or surface impoundments, e.g., new units and lateral expansions of existing landfills, and surface impoundments subject to the November 8, 1988 retrofit requirements.] (54 FR 26597)

A brief summary describing the basis for each of the treatment standards in Table 6.3 is presented below. For convenience, the technologies identified as BDAT for each of the wastes for which treatment standards have been promulgated are listed in Table 6.4 (page 6.27). Subsequent chapters will explain other important requirements of the first- and second-third rulemakings:

- Chapter 7 explains how mixtures, wastes with overlapping requirements, residues, and leachates are handled.
- Chapter 8 explains the requirements applicable to landfills and impoundments used to dispose soft-hammer wastes. This chapter also explains the treatment requirements applicable to soft-hammer wastes.
- Chapters 10 and 11 explain the requirements applicable to generators and TSD facilities, including the certification and demonstration requirements applicable to soft-hammer wastes.

Cyanide-Containing Wastes (F006-F012, K011, K013, K014, P013, P021, P029, P030, P063, P074, P098, P099, P104, P106, P121)

Cyanides are components of many listed hazardous wastes and also cause some wastes to be identified by the characteristic of reactivity. Treatment standards for the various types of cyanide wastes are summarized below.

Electroplating Wastes (F006-F009)

Wastes associated with electroplating operations frequently have a high iron content that leads to the formation of stable iron/cyanide complexes. Because these complexes are more difficult to treat than free cyanides, the cyanide treatment standard for these wastes is set relatively high (590 mg/kg total cyanides and 30 mg/kg amenable cyanides).

Note that the cyanide treatment standards for F006-F012 wastes are based on the total cyanide concentration of the waste, not the leachable cyanide as determined by the TCLP. The impact of this distinction is that solidification is not considered a viable alternative for treating cyanide wastes because the presence of cyanide complexes, which could degrade to free cyanide over time, would not be detected in a leaching test.

Several clarifications are needed concerning the treatment standards for F006 wastes:

- Even though F006 wastes are sludges when generated, EPA selected alkaline chlorination, which is primarily a wastewater treatment process, as BDAT. EPA states that the BDAT technology can be applied prior to the point at which sludges are generated or by slurring the sludges with water.

- The first-third rule clarified the regulatory status of free water contained in the F006 sludge:

"[S]upernatant from F006 generation is not considered to be F006, but simply wastewater from treatment of electroplating wastewaters. Filtrate from F006 sludges could be hazardous under the derived-from rule, but if it is similar in terms of identity and concentration of constituents in the influent to the wastewater treatment process, it is not considered to be derived from F006. Rather, it is the original influent wastewater."

- Treatment standards have only been established for F006 nonwastewaters; hence, F006 wastewaters are subject to the soft-hammer prohibitions. The first-third rule established treatment standards for metal constituents based on chemical precipitation, settling, filtration and stabilization with cement kiln dust.

- Because stabilization is BDAT for heavy metals, the wastes must be tested by the toxicity characteristic leaching procedure (TCLP) for leachable heavy metals. The second-third rule established treatment standards for cyanides based on alkaline chlorination. Compliance with the cyanide standard is based on analysis of the total sample composition.

- Because treatment standards for F006 wastes have been established by different rules, the effective dates applicable to these wastes are fragmented:

- Treatment standards applicable to metal constituents in nonwastewaters being surface disposed are effective August 8, 1988;
- Treatment standards applicable to cyanide constituents in nonwastewaters being surface disposed are effective July 8, 1989;
- The effective date for underground injection of F006 nonwastewaters is June 7, 1989;
- F006 wastewaters, are subject to the soft-hammer restrictions effective August 8, 1988 when disposed in a landfill or surface impoundment; and
- F006 wastewaters disposed in other than impoundments or landfills (including disposal by underground injection) are not subject to any restrictions until May 8, 1990 when the hard hammer falls (unless the wastewater is a California list waste—Table 5.1).

TABLE 6.4
BDAT TECHNOLOGIES FOR WASTES SUBJECT TO A TREATMENT STANDARD
UNDER THE FIRST- AND SECOND-THIRD RULEMAKINGS¹

Waste description	Best demonstrated available technologies (BDAT)	
	Nonwastewater	Wastewater
F006	Alkaline chlorination (cyanides); chemical precipitation, settling, filtration, and stabilization (metals)	(No treatment standards promulgated)
F007	Alkaline chlorination (cyanides); chemical precipitation, settling, filtration, and stabilization (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling, sludge dewatering (metals)
F008	Alkaline chlorination (cyanides); chemical precipitation, settling, filtration, and stabilization (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling, sludge dewatering (metals)
F009	Alkaline chlorination (cyanides); chemical precipitation, settling, filtration, and stabilization (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling, sludge dewatering (metals)
F010	Incineration (cyanides)	Alkaline chlorination (cyanides); chemical precipitation, settling, sludge dewatering (metals)
F011	Electrolytic oxidation followed by alkaline chlorination (cyanides); chemical precipitation, settling, filtration, and stabilization (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling, sludge dewatering (metals)
F012	Electrolytic oxidation followed by alkaline chlorination (cyanides); chemical precipitation, settling, filtration, and stabilization (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling, sludge dewatering (metals)
F024	Rotary kiln incineration	— ³
K001	Rotary kiln incineration, followed by stabilization of the ash	Chemical precipitation
K004	No land disposal	(No treatment standards promulgated)
K005	No land disposal based on no generation	(No treatment standards promulgated)
K007	No land disposal based on no generation	(No treatment standards promulgated)
K008	No land disposal	(No treatment standards promulgated)
K009	Rotary kiln incineration	Steam stripping followed by biological treatment
K010	Rotary kiln incineration	Steam stripping followed by biological treatment
K011	Incineration	(No treatment standards promulgated)
K013	Incineration	(No treatment standards promulgated)
K014	Incineration	(No treatment standards promulgated)
K015	Liquid injection incineration	— ³
K016	Rotary kiln incineration	Injection to rotary kiln afterburner
K018	Rotary kiln incineration	Injection to rotary kiln afterburner
K019	Rotary kiln incineration	Injection to rotary kiln afterburner
K020	Rotary kiln incineration	Injection to rotary kiln afterburner
K021	No land disposal	(No treatment standards promulgated)
K022	Fuel substitution, solidification of ash	(No treatment standards promulgated)
K023	Rotary kiln incineration	— ³
K024	Fuel substitution, solidification of ash	— ³
K025	No land disposal	(No treatment standards promulgated)

TABLE 6.4
BDAT TECHNOLOGIES FOR WASTES SUBJECT TO A TREATMENT STANDARD
UNDER THE FIRST- AND SECOND-THIRD RULEMAKINGS¹ – Continued

Waste description	Best demonstrated available technologies (BDAT)	
	Nonwastewater	Wastewater
K027	Incineration or fuel substitution ²	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
K028	Rotary kiln incineration	Sulfide precipitation followed by settling, filtration and dewatering for metals removal
K029	Rotary kiln incineration	(No treatment standards promulgated)
K030	Rotary kiln incineration	Injection to rotary kiln afterburner
K036	No land disposal based on no generation	Biological treatment
K037	Rotary kiln incineration	— ³
K038	Rotary kiln incineration	Biological treatment
K039	Incineration ²	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
K040	Rotary kiln incineration	Biological treatment
K043	Incineration	— ³
K044	Open detonation	— ³
K045	Open detonation	— ³
K046 (non-reactive)	Stabilization	(No treatment standards promulgated)
K047	Open detonation	— ³
K048	Solvent extraction or incineration, stabilization of ash	Chromium reduction, chemical precipitation, vacuum filtration
K049	Solvent extraction or incineration, stabilization of ash	Chromium reduction, chemical precipitation, vacuum filtration
K050	Solvent extraction or incineration, stabilization of ash	Chromium reduction, chemical precipitation, vacuum filtration
K051	Solvent extraction or incineration, stabilization of ash	Chromium reduction, chemical precipitation, vacuum filtration
K052	Solvent extraction or incineration, stabilization of ash	Chromium reduction, chemical precipitation, vacuum filtration
K060	No land disposal	(No treatment standards promulgated)
K061 (low zinc)	Stabilization	(No treatment standards promulgated)
K061 (high zinc)	Stabilization until August 8, 1990; no land disposal thereafter	(No treatment standards promulgated)
K062	Chromium reduction, chemical precipitation, filtration, sludge dewatering	— ³
K069 (non-calcium sulfate)	Total recycle	(No treatment standards promulgated)
K071	Acid leaching, chemical oxidation, dewatering	Sulfide precipitation, filtration
K083	Liquid injection incineration or fuel substitution	(No treatment standards promulgated)

TABLE 6.4
BDAT TECHNOLOGIES FOR WASTES SUBJECT TO A TREATMENT STANDARD
UNDER THE FIRST- AND SECOND-THIRD RULEMAKINGS¹ – Continued

Waste description	Best demonstrated available technologies (BDAT)	
	Nonwastewater	Wastewater
K086	Liquid injection incineration, stabilization of ash	Chromium reduction, chemical precipitation, filtration
K087	Rotary kiln incineration, stabilization of ash	Chemical precipitation, filtration
K093	Rotary kiln incineration	— ³
K094	Rotary kiln incineration	— ³
K095	Rotary kiln incineration	(No treatment standards promulgated)
K096	Rotary kiln incineration	(No treatment standards promulgated)
K099	Chlorine oxidation	— ³
K100	No land disposal	(No treatment standards promulgated)
K101 (low arsenic)	Rotary kiln incineration, stabilization of ash	Chemical precipitation, filtration
K102 (low arsenic)	Rotary kiln incineration, stabilization of ash	Chemical precipitation, filtration
K103	Solvent extraction, followed by steam stripping, followed by carbon adsorption	— ³
K104	Solvent extraction, followed by incineration, followed by carbon adsorption, followed by carbon regeneration	— ³
K113	Incineration or fuel substitution ²	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
K114	Incineration or fuel substitution ²	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
K115	Incineration or fuel substitution ²	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
K116	Incineration or fuel substitution ²	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
P013	Electrolytic oxidation followed by alkaline chlorination (cyanides); chemical precipitation, settling, filtration (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling and sludge dewatering (metals)
P021	Electrolytic oxidation followed by alkaline chlorination (cyanides); chemical precipitation, settling, filtration (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling and sludge dewatering (metals)
P029	Electrolytic oxidation followed by alkaline chlorination (cyanides); chemical precipitation, settling, filtration (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling and sludge dewatering (metals)
P030	Electrolytic oxidation followed by alkaline chlorination (cyanides); chemical precipitation, settling, filtration (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling and sludge dewatering (metals)

TABLE 6.4
BDAT TECHNOLOGIES FOR WASTES SUBJECT TO A TREATMENT STANDARD
UNDER THE FIRST- AND SECOND-THIRD RULEMAKINGS¹ – Continued

Waste description	Best demonstrated available technologies (BDAT)	
	Nonwastewater	Wastewater
P039 P040	Rotary kiln incineration Incineration ²	Biological treatment Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
P041	Incineration ²	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
P043	Incineration ²	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
P044	Incineration ²	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
P062	Incineration ²	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
P063	Electrolytic oxidation followed by alkaline chlorination (cyanides); chemical precipitation, settling, filtration (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling and sludge dewatering (metals)
P071	Rotary kiln incineration	Biological treatment
P074	Electrolytic oxidation followed by alkaline chlorination (cyanides); chemical precipitation, settling, filtration, stabilization (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling and sludge dewatering (metals)
P085	Incineration ²	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
P089	Rotary kiln incineration	Biological treatment
P094	Rotary kiln incineration	Biological treatment
P097	Rotary kiln incineration	Biological treatment
P098	Electrolytic oxidation followed by alkaline chlorination (cyanides); chemical precipitation, settling, filtration (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling and sludge dewatering (metals)
P099	Electrolytic oxidation followed by alkaline chlorination (cyanides); chemical precipitation, settling, filtration, stabilization (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling and sludge dewatering (metals)
P104	Electrolytic oxidation followed by alkaline chlorination (cyanides); chemical precipitation, settling, filtration, stabilization (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling and sludge dewatering (metals)
P106	Electrolytic oxidation followed by alkaline chlorination (cyanides); chemical precipitation, settling, filtration (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling and sludge dewatering (metals)

TABLE 6.4
BDAT TECHNOLOGIES FOR WASTES SUBJECT TO A TREATMENT STANDARD
UNDER THE FIRST- AND SECOND-THIRD RULEMAKINGS¹ – Continued

Waste description	Best demonstrated available technologies (BDAT)	
	Nonwastewater	Wastewater
P109	Incineration ²	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
P111	Incineration ²	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
P121	Electrolytic oxidation followed by alkaline chlorination (cyanides); chemical precipitation, settling, filtration (metals)	Alkaline chlorination (cyanides); chemical precipitation, settling and sludge dewatering (metals)
U028	Rotary kiln incineration	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
U058	Incineration ²	
U069	Rotary kiln incineration	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
U087	Incineration ²	
U088	Rotary kiln incineration	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
U102	Rotary kiln incineration	
U107	Rotary kiln incineration	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
U190	Rotary kiln incineration	
U221	Incineration or fuel substitution ²	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
U223	Incineration or fuel substitution ²	Carbon adsorption or incineration; or pre-treatment (such as biological treatment or chemical oxidation) followed by carbon adsorption and incineration ²
U235	Rotary kiln incineration	Biological treatment

¹Unless otherwise indicated, use of BDAT is not required as long as wastes or treatment residues meet the concentration-based standards.

²Use of the technologies specified is required in order to meet treatment standards.

³Separate BDAT not specified for wastewaters.

Source: McCoy and Associates, Inc. adapted from 54 FR 26600-26601.

A trivial 30-day extension to the effective date (until July 8, 1989) was granted for cyanide wastes that are probably already treated by alkaline chlorination (F006 nonwastewaters, F007, F008, and F009).

Metal Heat Treating Wastes (F010-F012)

In comparison with electroplating wastes, metal heat treating wastes have relatively low iron contents and are less likely to contain high concentrations of iron/cyanide

complexes. As a result, heat treating wastes F011 and F012 must ultimately meet a more stringent cyanide standard of 110 mg/kg total cyanides and 9.1 mg/kg amenable cyanides in nonwastewaters.

The treatment standards for F010 wastes also require some explanation. This waste is typically generated as a two-phase organic/water waste. The organic phase is considered a nonwastewater for which incineration constitutes BDAT for cyanide destruction. The water phase is subject to a treatment standard based on alkaline chlorination for cyanide destruction. A situation might occur where F010 wastewaters are treated by alkaline chlorination and a sludge is produced that does not meet the standards for F010 nonwastewaters. The preamble gives the following advice for this situation:

"As a point of clarification, the Agency first notes that treatment residues from treating F010 wastewaters are listed under the F012 waste code (wastewater treatment sludge from metal heat treating operations) and would therefore be subject to the cyanide standards for F012 nonwastewaters. Such sludges would therefore not be subject to the standards based on performance of incineration." (54 FR 26612)

F011 and F012 wastewaters and nonwastewaters are subject to a staged effective date. They must meet the treatment standard for F007-F009 wastes by July 8, 1989 (590 mg/kg total cyanide and 30 mg/kg amenable cyanide), but need not meet the treatment standard for F011-F012 nonwastewaters (110 mg/kg total cyanide and 9.1 mg/kg amenable cyanide) until December 8, 1989. This provision is intended to allow heat treating operators sufficient time to begin treating their cyanide wastes.

Acrylonitrile Wastes (K011, K013, K014)

Treatment standards were only finalized for acrylonitrile nonwastewaters based on incineration as BDAT. When disposed by underground injection, K011 and K013 nonwastewaters are covered by a two-year extension in the effective date to June 8, 1991; no effective date has been established yet for injection of K014 nonwastewaters.

The wastewater forms of these first-third wastes are soft-hammer wastes.

Cyanide-Containing P-Wastes (P013, P021, P029, P030, P063, P074, P098, P099, P104, P106, P121)

These cyanide wastes are usually discarded, out-of-date, or off-specification chemicals that frequently also contain a metal constituent. For the high-concentration nonwastewaters, electrolytic oxidation followed by alkaline chlorination is considered BDAT for cyanide destruction, and stabilization is BDAT for metal constituents. For the wastewater forms of these wastes, BDAT consists of alkaline chlorination for cyanide destruction

followed by chemical precipitation, settling, and filtration for metals removal. Treatment standards for nickel and silver have been established for P074 and P099, respectively, while standards for other metal constituents (barium, copper, and zinc) may be issued in the future.

Chlorinated Aliphatics Production Wastes (F024)

Wastes from the production of chlorinated aliphatics typically consist of 5% water, 5% chlorinated organic constituents, and 90% nonchlorinated organics. Rotary kiln incineration is considered to be BDAT for these wastes. Although the proposed first-third rule included treatment standards for chromium and nickel in nonwastewaters (e.g., incinerator ash), the final rule did not finalize these standards—the metals may be covered in a future rulemaking. Note, however, that treatment standards were finalized for chromium and nickel in F024 wastewaters (e.g., scrubber water).

Wood Preserving Wastes (K001)

Approximately 400 facilities use creosote or pentachlorophenol as wood preservatives. When wastewaters from these operations are subject to simple gravity separation or other treatment, a sludge results that is classified as hazardous waste number K001.

BDAT for K001 wastes has been determined to be rotary kiln incineration followed by stabilization of the nonwastewater residues (ash) and chemical precipitation of metal constituents in the wastewater (scrubber water). Organic constituents must be measured on a total composition basis, while heavy metal concentrations in the nonwastewater residues (solidified ash) must be determined using the TCLP.

EPA has determined that sufficient capacity is available to handle K001 wastes; therefore, the effective date for surface disposal of these wastes is August 8, 1988. The effective date for underground injection is June 7, 1989, after which time the wastes cannot be injected unless they meet the treatment standards, or unless they are subject to a valid no-migration petition or a case-by-case extension.

Wastes from Pigment Production (K004, K005, K007, and K008)

A treatment standard of "no land disposal based on no generation" has been established for nonwastewater forms of K005 and K007 pigment production wastes. Although EPA had issued a similar treatment standard for K004 and K008 wastewaters in the first-third rulemaking, these standards were rescinded by the second-third rule. EPA recognizes that nonwastewater forms of K005 and K007 wastes could be generated if leachate from a landfill containing the wastes were to be treated resulting in a nonwastewater treatment residue. Therefore, on May 2, 1989 (54 FR 18836) a rule was issued that only makes the "no land disposal" standard

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<p>6. Signature — Agent</p> <p>X </p>	
<p>7. Date of Delivery</p> <p>MAY 1 1990</p>	
<p>8. Addressee's Address (<i>ONLY if requested and fee paid</i>)</p>	

DOMESTIC RETURN RECEIPT

Oil Processing
Company.

Done

















